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ABSTRACT

The study of vocational education success measures and related concerns in Washington State is based on surveys of employers, graduates of vocational programs, current students in vocational programs, and local advisory committee members. Current vocational students regard the quality of present programs more highly than do either vocational graduates or employers. In measuring the success of vocational programs, all groups consider student satisfaction, successful job placement, skill development, on-the-job advancement, and placement in advance training programs as valid measures of success. Responses also indicate that employers, vocational graduates, and vocational students do not make extensive use of workforce forecasts, and that current students are more concerned with increasing the placement services offered by vocational training institutions than are the other respondent groups. Regarding future directions for vocational education, responses indicate strong support for career education in the State's common schools and the organization of vocational education planning conferences for labor, industry, and educational personnel. The study concludes with a list of seven immediate and long-range recommendations. Seven appendixes which include the study plan, the four survey instruments, firms and agencies in empolyer and graduate samples, and educational institutions and classes sampled, comprise over half the document. (Author/JR)

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VOCATIONAL EDUCATION SUCCESS MEASURES AND RELATED CONCERNS

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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A Special Report
of the

WASHINGTON STATE ADVISORY COUNCIL ON VOCATIONAL EDUCATION
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TABLE OF CONTENTS

	Page
Foreword	v
Introduction	1
Viewpoints on Quality of Present Programs	6
Success Measures for Vocational Programs	10
Workforce Forecasts and Placement Concerns	15
Future Direction for Vocational Education	18
Recommendations and Areas for Further Study	22
Index of Tables and Appendices	25

FOREWORD

Policy makers at both the state and national levels have long held that the singular objective, the prime success measure of vocational education was job placement. Few would dispute the validity or desirability of that objective; however, most vocational educators will admit that actual placement of vocational education graduates has been only a qualified success.

Clearly, there are reasons in addition to immediate placement that prompt students to enroll in vocational programs. Vocational educators have long known of other valuable outcomes of vocational education, but because of the placement emphasis, little light has been shed on additional success measures.

For this reason the Advisory Council decided to study the question of success measures of vocational education in Washington State. Early in 1974 the Council's Report Committee began the project design, concluding that certain information and opinions were desirable from vocational students, vocational graduates or completers, from employers and from local program advisory committees. The Council retained the Bureau of School Service and Research of the University of Washington to design the survey instruments, gather the information and analyze the results. Resultant recommendations printed on pages 22 and 23 are solely those of the Advisory Council. The Council believes that the recommendations are supported by the study; however, the agency or agencies called upon for action are derived from the Council's mandate and best judgment.

The Advisory Council is indebted to Dr. Howard Johnson, Associate Director of the Bureau of School Service and Research, and Max Schliewe, Jr., Research Associate of the Bureau, for a highly professional and enlightening study.

Appreciation is also due the Report Committee, chaired by Dr. Ben Yormark, whose members included James McCoskey, Norward Brooks, John Larsen, Jeanette Poore, Clifton Olson and Michael Edwards.

Introduction

As part of its continuing responsibility for monitoring vocational education programs in the State of Washington, the State Advisory Council on Vocational Education is concerned about opinions of various participant and user groups. Of particular importance to Council members is the apparently diverse viewpoints regarding the aims and purposes of vocational programs. Most legislative and educational leaders agree that job placement is one important purpose or measure of success for vocational courses and training programs, but the extent to which alternative factors (such as student and parent satisfaction, early exposure to adult working experience, and practical focus in the educational experience) can and should be viewed as measures of success for vocational education is less certain. Different groups and individuals can be expected to hold varying opinions on these alternative success measures and these opinions can lead to confusion when it comes to judging the value of current programs or suggested changes in these programs.

As a means of gaining a better understanding of viewpoints relating to these and other related questions, the Advisory Council in Washington State embarked on a set of study activities during the Fall of 1974. This study is still in progress and includes as one part the survey summarized later in this report. The several activities associated with the study are specifically directed to gaining information on the following concerns or questions:

- What are the purposes of vocational education and what success measures might be used in assessing the extent to which these purposes are fulfilled?
- What information both nationally and within the State speaks to the varying success measures and what additional information would be useful in making more adequate decisions about program success?
- To what extent are such related functions as workforce forecasting, guidance, and job placement critical to the overall success in vocational education and how might such functions be structured to meet more adequately the needs of the institutions and their students?
- What steps might be taken to gain a better understanding of purposes and success measures for vocational education among legislative and governmental officials, educators, employers, employees, and students?

A more detailed study plan is included in Appendix A of this report and the several instruments used to date in collecting information from the respondent groups are found in Appendix B. This particular report summarizes much of the data collected in connection with the first part of the study plan and presents conclusions based upon this data. The data and summary conclusions as presented here have already assisted members of the Advisory Council in their efforts to identify differences in viewpoints for various institutional and user groups. Hopefully, the information will be useful to other groups involved in planning the direction of vocational education in Washington State. We begin this summary report with a brief comment on literature reviewed by members of the Advisory Council.

Literature on Success Measures in Vocational Education

As an initial step in examining possible success measures for vocational education, members of the Advisory Council reviewed 136 reports and journal articles identified through an ERIC search on the subject. Each of the reports and articles had been published within the past two years. As might be expected, none of the reports dealt directly with a comparison of viewpoints by specific institutional and user groups. Most of the materials as reviewed by the Advisory Council dealt with placement experience of vocational programs; however, the way in which the placement concern was handled varied considerably in the different reviews. Very few of the materials dealt with employer or student viewpoints but those which did were of some use in developing plans for the Advisory Council Survey summarized in subsequent sections of this report. While a bibliography of helpful references is not included as part of this report, brief annotations are available in the Advisory Council files.

Sample Selection Procedures

After reviewing the several articles and reports dealing with outcome or success measures for vocational education, the Advisory Council proceeded with development of its own survey of institutional and user viewpoints in the State of Washington. The groups included in this survey were employers, graduates of vocational programs, current students in vocational programs, and members of local vocational advisory committees. The sample sizes and selection procedures for each of these respondent groups were as follows:

Employers—The employer group consisted of one supervisor or manager from each of 144 firms in the State of Washington. These firms are listed in Appendix C of this report and they represent a cross section (by geography, size and institutional type) of employment institutions in the state. Tables 1, 2, and 3 show the distributions by geography, size, and institutional type. Of the total group of industries, we note that 40 are classified as goods-producing and the remaining 104 as service-producing.

Graduates of Vocational Programs—The graduate sample was obtained by selecting one employee from each of the 144 firms who had graduated from one or more vocational programs within the State of Washington. Firms were asked to select persons who had graduated within the past three or four years. This preference was observed whenever possible. A distribution of graduates according to the type of program or programs completed is found in Table 4.

Current Students in Vocational Programs—The sample of current students was obtained by selecting 38 vocational classes from a variety of subject areas. All students attending class on the day designated for the survey were included in the sample. A listing of the classes (identified only by school and subject area) is found in Appendix D of this report .The sample was actually selected by the Coordinating Council for Occupational Education and was designed to reflect the enrollments of the state as a whole. Hence, the proportion of students in the sample from the various types of institutions and from rural, suburban, and urban communities generally reflect the distribution of statewide enrollments over these same categories. A distribution of the 693 student respondents according to school type and occupational training area is found in Table 5.

Local Advisory Committee Members—The advisory committee members associated with each of these same 38 vocational classes were asked to respond to a written questionnaire. This questionnaire included many of the same questions used with the other three respondent groups. A total of 120 questionnaires were returned in time to be included in the survey results. Of the 120, 57 were associated with high school programs, 25 were from vocational-technical institutes, and 63 were associated with community colleges. The total respondent group averaged 2.5 years of service on the particular local advisory committees represented in the survey.

In the case of employer and graduate groups, the interview method was used in the data collection. Students were asked to fill out a questionnaire during a regular class session and a member of the survey team was present to explain the purpose of the survey and to provide direction and assistance as needed. Local Advisory Committee members responded to a mailed questionnaire and no effort was made to follow up on non-respondents in this latter group. Data collection activities were directed by the Bureau of School Service and Research (BSSR) of the University of Washington. The analysis of survey results and the related recommendations were handled jointly by the BSSR and the Report Committee of the State Advisory Council on Vocational Education. We examine these survey results in subsequent sections of this summary report.

TABLE 1

SAMPLE DISTRIBUTION OF EMPLOYERS BY GEOGRAPHIC AREA

Area	Number of Employers	Percent of Total
Aberdeen, Hoquiam	3	2.1
Bellevue, Kirkland, Renton	6	4.2
Bellingham	4	2.8
Centralia	1	0.7
Edmonds, Lynnwood, Mountlake Terrace	4	2.8
Ellensburg, Toppenish, Yakima	14	9.7
Everett, Marysville	6	4.2
Kelso, Longview, Vancouver	8	5.6
Kent	2	1.4
Kitsap, Peninsula	4	2.8
Newport	2	1.4
Olympia	1	0.7
Other King County	3	2.1
Other Snohomish, Skagit, Whatcom Counties	4	2.8
Seattle	53	36.4
Spokane	19	13.2
Tacoma	4	2.8
Tri-Cities	4	2.8
Wenatchee	2	1.4
Total	144	100.0

TABLE 2

SAMPLE DISTRIBUTION BY SIZE OF FIRM

Number of Employees	Firms	
	Number	Percent
1 — 49	55	38.2
50 — 99	22	15.3
100 — 240	17	11.8
250 — 499	18	12.5
500 — 999	9	6.3
1000 — 2499	12	8.3
2500 — 4999	1	0.7
5000 +	8	5.5
None Indicated	2	1.4
Total	144	100.0

TABLE 3

SAMPLE DISTRIBUTION BY TYPE OF FIRM OR AGENCY

Firm or Agency Classification[a]	Sample		State of Washington[b]	
	Number	Percent	Number	Percent
Goods-Producing				
Agriculture, mining, and fishing	5	3.5	56,962	4.5
Construction	10	7.0	75,515	6.1
Manufacturing	25	17.4	266,875	21.6
Service-Producing				
Transportation	6	4.1	55,262	4.5
Utility and sanitary services	7	4.9	38,375	3.1
Wholesale trade	6	4.1	59,857	4.9
Retail trade	29	20.1	205,049	16.6
Finance and insurance	7	4.9	68,745	5.6
Business and repair service	6	4.1	38,395	3.1
Entertainment and recreation services	1	0.7	10,845	0.9
Welfare and religious services	2	1.4	20,802	1.7
Legal, engineering, and professional services	2	1.4	29,731	2.4
Personal services	6	4.1	52,494	4.3
Health services	10	7.0	72,330	5.9
Education services	14	9.7	112,965	9.2
Public administration	8	5.6	68,861	5.6
Total	144	100.0	1,233,063	100.0

[a]The firm or agency classifications are generally consistent with the categories used in both the U.S. Census and in the Employment Security Department, State of Washington.

[b]The State of Washington data is reflective of the labor force distribution as reported in the 1970 U.S. Census.

TABLE 4

SOURCES OF GRADUATE'S VOCATIONAL TRAINING*

Type of Institution	Number Receiving Training	Percent of Total Respondent Group
Public High School	80	55.6
Vocational-Technical Institute	27	18.8
Community College	64	44.4
Federal Manpower Training	4	2.8
Private Vocational School	26	18.1
Other	42	29.2

* Each of the 144 vocational graduates was asked to indicate all sources of his/her vocational training; hence, the sum of percentages exceeds 100.

The "Other" category principally includes training received in the military service and through apprenticeship programs.

TABLE 5

STUDENT RESPONDENTS BY SCHOOL TYPE AND OCCUPATIONAL TRAINING AREA[a]

Training Area \ School	Public High School	Vocational Technical Institute	Community College	Total	
				Number	Percent
Clerical	90	29	31	150	21.6
Sales	64	0	43	107	15.4
Craftsmen	59	25	3	87	12.6
Equipment Operator	32	1	5	38	5.5
Technician	2	17	74	93	13.4
Service Worker	20	6	4	30	4.3
Other[b]	68	27	93	188	27.2
Total	335	105	253	693	100.0

[a]Vocational Student Survey, Part I, Questions No. 2 and No. 3.

[b]The 188 students classifying themselves as other were primarily from classes in horticulture and business and office. These students simply felt the classifications as provided on the survey form were not appropriate for their training program.

Viewpoints on Quality of Present Programs

Several questions asked of the respondent groups dealt with the quality and/or appropriateness of vocational programs in the major agencies and institutions providing services. The data in Table 6 indicates that current vocational students react more favorably to present programs than either the vocational graduates or employer respondent groups. The relation between these overall quality ratings and the viewpoints on alternative success measures will be explored in the next section of this report. Suffice it here to mention that current vocational students seem to weigh "student satisfaction with training programs" more heavily than do employers. The employer and vocational graduate groups tend to view the program's "ability to hold potential dropouts in school" as much more important than do the current vocational students.

With respect to the current student populations, it might be of interest to note that the overall rating of vocational programs appears highest among the high school group. Thirty-four percent of the high school group agreed that "vocational programs and services are really quite adequate and very little in the way of improvement is needed" as contrasted with only 26 and 19 percent respectively for the vocational-technical and community college respondent groups.

In looking at the two broad classifications within the employer respondent group—those associated with the goods-producing and service-producing sectors—we find the goods-producing group to be slightly less positive on the quality question. Twenty-six percent of the employers in goods-producing industries selected "vocational programs are not at all adequate and major changes are needed in current approaches" as contrasted with only fifteen percent for those in the service-producing group. The percent of all employers selecting this response was 17.4 as noted in Table 6.

TABLE 6

VIEWS ON ADEQUACY OF VOCATIONAL PROGRAMS[a]

Statements[b]	Percent of Respondents Agreeing		
	Employers	Vocational Graduates	Students
Vocational programs and services are really quite adequate and very little in the way of improvement is needed.	4.9	9.7	26.7
Vocational programs are adequate but definite improvements are needed.	75.0	75.0	60.2
Vocational programs are not at all adequate and major changes are needed in current approaches.	17.4	11.8	7.4
No Response	2.7	3.5	5.7

[a] Employer and Vocational Graduate Survey, Part II, Question # 7b; Vocational Student Survey, Part II, Question # 8b.

[b] Each respondent was asked to select the single statement which best represented his/her viewpoint. The "no response" group includes those in each respondent group who did not make a choice among the three statements.

The appropriateness rating, as recorded in Table 7, are not intended as viewpoints on quality, but they do indicate the feelings of the three respondent groups as to whether certain agencies should operate vocational programs. Since all ratings exceed 3.0, we conclude that all three respondent groups (employers, vocational graduates, and local advisory committee members) indicate some degree of approval for all listed agencies; however, the support for Federal Manpower Training, especially for the employer and local advisory committee groups is at a minimal level. The three major public delivery systems—public high schools, vocational-technical institutes and community colleges—received strong support from the three respondent groups listed in Table 7. This strong support for involvement of public high schools, vocational-technical institutes, and community colleges exists for employer and vocational graduate subgroups within both the goods-producing and service-producing industries. In none of these subgroups did the appropriateness rating for any of the major public delivery systems (public high school, vocational-technical institutes, or community colleges) fall below 3.80.

In Table 8A, we present a summary of student views as to which institutional type is likely to provide the best training in the several program areas. It seems clear that the school identification of the student respondent tends to encourage selection of the institution at which the student himself/herself is attending. For example, 26.9 percent of the high school respondents selected the "public high school" as an institution providing the best vocational training in their subject field. Less than 5 percent of the other two respondent groups selected the "public high school" as providing the best vocational training.

TABLE 7

AGENCY APPROPRIATENESS FOR PROVIDING VOCATIONAL TRAINING[a]

Agency Type	Appropriateness Rating[b]		
	Employers	Vocational Graduates	Local Advisory Committee Members
Public High Schools	3.96 (3)	3.84 (3)	3.88 (3)
Vocational-Technical Institutes	4.31 (1)	4.25 (2)	4.74 (1)
Community Colleges	4.13 (2)	4.27 (1)	4.23 (2)
Federal Manpower Training Programs	3.10 (5)	3.23 (5)	3.07 (5)
Private Vocational Schools	3.69 (4)	3.78 (4)	3.62 (4)

[a]Employer and Vocational Graduate Surveys, Part II, Question #1a; Local Advisory Committee Survey, Part II, Question #1a.
[b]The rating is based upon a five point scale with 5 representing highly appropriate and 1 representing highly inappropriate. Any rating above 3.0 indicates some degree of appropriateness as viewed by the total respondent group. Numbers in parentheses indicate the rank ordering of responses to each group.

TABLE 8A

INSTITUTIONS JUDGED TO PROVIDE THE BEST VOCATIONAL TRAINING[a]

(According to Student's School Identification)

Student Respondent Group[b]	Percent Indicating No Preference	Percent Selecting Indicated Institution Type[c]					
		4-Year College	Community College	Vocational-Technical Institute	Public High School	Private Vocational School	Other
Public High School (335)	25.7	13.4	21.2	34.0	26.9	16.1	2.1
Vocational-Technical Institute (105)	13.3	15.2	12.4	78.1	4.8	6.7	3.8
Community College (253)	8.3	30.8	57.3	36.0	3.6	7.9	1.6

[a]Vocational Student Survey, Part II, Question #1.
[b]The three student respondent groups are presented separately. The numbers in parentheses represent the size of the sample for each respondent group.
[c]Since respondents were permitted to select more than one preference, the sum of percentages can exceed 100.

Since the question was to be viewed from the perspective of the respondent's training area (rather than vocational training overall), the summary of Table 8B is more instructive in looking at this matter of training preference. We note in Table 8B that students rate vocational-technical institutes as stronger than any other agency type in the clerical, craftsman, equipment operator and service worker categories. A total of 45.3 percent of the students selected vocational-technical institutes as providing the best of programs in the clerical category. Similarly, 59.8, 39.5, and 36.7 percent selected vocational-technical institutes in the craftsman, equipment operator, and service worker categories. Community colleges were rated the highest of all agencies for programs in the technician and sales areas, with 47.3 and 42.0 percent respectively selecting the community college as the preferred institution. Looking at the preferences within institutional type rather than as a comparison between institutions, we observe that public high schools receive their highest ratings in the service worker, craftsman, and equipment operator categories. The relatively large number of students expressing no particular preference, particularly among the high school group (Table 8A) and among the clerical, equipment operator, and service worker trainees (Table 8B), suggests that many students are hesitant in expressing opinions about programs or institutions other than those in which they have actually participated.

Another look at the question of quality is presented in Table 9. In this table, we summarize the expressed training preferences of employers. Only those actually hiring employees of a particular type (clerical, sales, craftsman, etc.) were asked to indicate their views with respect to the type of training program preferred. Preferences were scored as slight or strong and mean preference ratings were computed for each of the six occupational categories as listed in Table 9. The preferences are clearly more pronounced in the craftsman and equipment operator categories than in any of the others. In both of these categories the vocational-technical institute is the favored agency type. Graduates of public high school programs are preferred over graduates of the other two major public vocational delivery systems (community colleges and vocational-technical institutes) only in the service worker category. This relatively weak showing for public high school programs is undoubtedly influenced by more than just technical or program considerations. The fact that employers generally prefer older and more mature employees must also be considered in interpreting judgments of program quality by institution type. The fact that 78.9 and 68.1 percent respectively of the employer and vocational graduate respondents included in this survey either "strongly agreed" or "agreed" with the statement. "Most employers when choosing between an 18- and 22-year old with similar job skills and training will choose the older of the two applicants" (Employer and Vocational Graduate Surveys, Part II, Question #5b) suggests that age is an important factor in hiring preferences. On holding age constant, however, we do have evidence that training makes a difference, at least from the viewpoint of potential employers. Sixty-eight percent of the employers interviewed either "strongly agreed" or "agreed" that students trained in specific vocational programs are better employees than those not receiving such training." (Employer Survey, Part II, Question #6d.) We conclude then that employers do perceive vocational training as important and that such programs should be offered by all the major public delivery systems. The preference for hiring graduates of vocational-technical institutes and community colleges is recognized but this does not mean that vocational training is inappropriate at earlier levels. The appropriateness rating of 3.96 for public high schools (as discussed earlier in connection with Table 7) indicates a general endorsement for starting specific vocational programs no later than the early years of high school. The fact that 53.3 percent of the employer respondents "strongly agreed" and another 25.7 percent "agreed" that "earlier emphasis on career concerns was a good thing" (Employer Survey, Question #5a) provides further support for this endorsement of early exposure to vocational pursuits.

TABLE 8B

INSTITUTIONS JUDGED TO PROVIDE THE BEST VOCATIONAL TRAINING

(According to Student's Training Area)

Student Training Area[b]	Percent Indicating No Preference	Percent Selecting Indicated Institution Type[d]					
		4-Year College	Community College	Vocational-Technical Institute	Public High School	Private Vocational School	Other
Clerical (150)	23.3	13.3	31.3	45.3	12.0	15.3	0.6
Sales (107)	15.9	22.4	42.0	30.8	20.6	14.0	1.9
Craftsman (87)	9.2	9.2	18.4	59.8	27.6	16.1	1.1
Equipment Operator (38)	18.4	15.8	13.2	39.5	26.3	21.1	7.9
Technician (93)	11.8	24.7	47.3	46.2	6.5	7.5	0.0
Service Worker (30)	16.7	10.0	16.7	36.7	30.0	3.3	3.3
Other[c] (178)	20.2	30.3	36.5	35.4	9.0	6.7	3.9

[a]Vocational Student Survey, Part II, Question #1.

[b]Each student respondent was asked to classify his current vocational training program according to one of the standard categories as listed. The numbers in parentheses represent the size of the group under each classification.

[c]The large number of students in the "other" classification is due primarily to the problem in placing students from horticulture and business and office classes in the six basic occupational groups as listed in this table.

[d]Since respondents were permitted to select more than one preference, the sum of percentages can exceed 100.

TABLE 9

TRAINING PROGRAM PREFERENCES AS EXPRESSED BY EMPLOYERS[a]

Type of Employee	Number of Firms Employing This Type of Employee	Number of Respondents Indicating a Preference[b]	Preference Rating for Training Program[c]						
			4-Year College	Community College	Vocational-Technical Institute	Public High School	Private Vocational School	Federal Manpower Training	Other
Clerical	140	127	.236	.811	.591	.409	.362	.031	.071
Sales	107	92	.543	.467	.120	.185	.043	.011	.130
Craftsmen	116	105	.048	.229	1.143	.076	.324	.048	.181
Equipment Operators	108	83	.000	.157	.747	.241	.217	.072	.325
Technicians	116	106	.528	.575	.689	.075	.302	.038	.094
Service Workers	103	67	.104	.284	.343	.672	.075	.045	.134

[a]Employer Survey, Part II, Question 1c.

[b]This represents the number of employers who indicated some preferences as to the type of training program. Only those employers whose firms hire employees of any particular type were given the option of indicating a preference.

[c]Those indicating some preference as to type of training program were asked to rate their preference as slight (1) or strong (2). The preference rating as reported here is simply the mean of the preference ratings. An indication of no preference for a particular training program was treated as zero in computing the preference rating.

Success Measures for Vocational Programs

Judgments about the quality of different vocational programs are quite obviously influenced by the factors or success measures viewed as most important. As an example, two persons may view a particular program quite differently if the key measure of success for one is "percent of graduates placed in jobs" and for the other it is "the amount of student satisfaction with the program." While there may be considerable interaction between these two factors, we can envision in some cases varying judgments by persons placing different degrees of emphasis on these two factors. In an effort to examine the differences between and among major institutional and user groups involved in this study, the survey team developed a list of twelve different factors which might be used to measure the success of vocational programs. The employer, vocational graduate, student, and local advisory committee respondents were asked to indicate the extent of their agreement with each of these twelve factors. The results are summarized in Table 10. One cannot help but be impressed with the similarity in overall response patterns among the four major respondent groups. Four of the top five measures of success as listed for students were also among the top five for each of the other three groups. In reviewing measures of success, judged most important by the several respondent groups and subgroups in Tables 10, 11A, 11B, and 12, we make the following observations:

1. The students tend to give slightly lower ratings to the several success measures than do any of the other respondent groups (Table 10). As one might expect, the single most important success measure for students is the "amount of student satisfaction." This is not among the top five choices for either employees or local advisory committee members. It is interesting to note that the second choice for the student respondent group is, "percent of graduates placed in jobs that are directly related to their training." This latter measure of success received a relatively high rating of 3.93 from the student group.

2. The "development of skills for getting along with all types and ages of people" was judged to be extremely important by both employers and vocational graduates (Table 10). It was only slightly less important to the student respondents.

3. The program's ability "to provide the student an opportunity to earn money during his/her training" is viewed as more important by students and vocational graduates than by employers. Employers and vocational graduates seem to differ from current students in their stronger support for "ability to hold students who might otherwise drop out" (Table 10).

4. Compared with other measures of success, the provision for the "physically and mentally handicapped" is not particularly important to any of the major respondent groups (Table 10). This does not suggest that these groups oppose programs for the handicapped. On the contrary, in response to a question relating to handicapped students, 53 percent, 51 percent and 46 percent of the employer, vocational graduate, and vocational student respondent groups supported the aggressive recruitment of handicapped students to vocational programs. (Employer and Vocational Graduate Surveys, Part II, Question #7a; Vocational Student Survey, Part II, Question #8a.)

5. While there is a general similarity of views of students from the three major subgroups (public high school, vocational-technical institute, and community college), the high school students tend to view "the opportunity for earning money during the training period" as more important than do the other two student subgroups (Table 11A). This is largely due to the fact that the vast majority of those students (176 of the 221) not indicating a serious vocational program commitment are enrolled at the high school level. This particular group of vocational students evidently see "the opportunity for earning money during the training period" as extremely important (Table 11B).

6. The vocational-technical institute students tend to weigh "opportunities provided for women" more heavily than the other two groups (Table 11A). This seems particularly important because the vocational-technical respondent subgroup has a larger majority of male students than do the other two subgroups.

7. With respect to measures of success for vocational programs, there were no major differences in views of employers from goods-producing and service-producing industries (Table 12). Four of the top five choices for both groups were exactly the same.

TABLE 10

MEASURES OF SUCCESS FOR VOCATIONAL TRAINING PROGRAMS[a]

Measures of Success	Mean Rating of Importance[b]			
	Students	Vocational Graduates	Employers	Local Advisory Committee
The amount of student satisfaction with the training program.	4.09 (1)	4.12 (3)	3.82	3.71
The percent of graduates placed in jobs that are directly related to their training.	3.93 (2)	4.24 (2)	4.07 (3)	4.37 (1)
The program's ability to develop in the student skills for getting along with all types and ages of people.	3.90 (3)	4.27 (1)	4.24 (1)	3.85 (4)
The rate at which graduates advance to more responsible positions within their chosen occupation.	3.88 (4)	4.10 (4)	4.19 (2)	4.22 (2)
The program's ability to provide the student an opportunity to earn money during his/her training.	3.80 (5)	3.81	3.64	3.24
The number of students admitted to advanced training programs in their chosen vocational field.	3.80 (5)	3.97 (5)	3.87 (5)	3.93 (3)
The extent to which the program offers extended vocational opportunities for women.	3.69	3.63	3.56	3.37
The percent of graduates placed in jobs.	3.66	3.77	3.56	3.79 (5)
The program's ability to provide the opportunity for students to experience the adult working world without having to make a specific commitment to a job.	3.62	3.92	3.79	3.66
The program's ability to hold students who might otherwise drop out of school.	3.57	3.92	3.94 (4)	3.77
The number of disadvantaged (or low income) students served by the program.	3.53	3.56	3.48	3.16
The number of physically or mentally handicapped students served by the program.	3.33	3.49	3.42	3.03

[a]Employer, Vocational Graduate, Vocational Student, and Local Advisory Committee Surveys, Part II, Question #2a. The measures of success are listed here and in all other tables according to the rank order by student respondents.

[b]The respondents were asked to indicate the extent of their agreement with each of the success criteria according to the following scale: 5 — strongly agree, 4 — agree, 3 — undecided, 2 — disagree, 1 — strongly disagree. The numbers in parentheses indicate the rank order of the top five measures of success for each respondent group.

TABLE 11A

STUDENT PREFERENCES FOR MEASURES OF SUCCESS[a]

(According to Type of Institution)

Measure of Success	Mean Rating of Importance[b]			
	Public High School	Vocational-Technical Institute	Community College	Total
The amount of student satisfaction with the training program.	4.16 (1)	4.06 (2)	4.02 (1)	4.09 (1)
The percent of graduates placed in jobs that are directly related to their training.	3.94 (3)	3.86	3.96 (2)	3.93 (2)
The program's ability to develop in the student skills for getting along with all types and ages of people.	3.91 (4)	4.09 (1)	3.82 (4)	3.90 (3)
The rate at which graduates advance to more responsible positions within their chosen occupation.	3.90 (5)	3.91 (3)	3.87 (3)	3.88 (4)
The program's ability to provide the student an opportunity to earn money during his/her training.	3.99 (2)	3.37	3.74	3.80 (5)
The number of students admitted to advanced training programs in their chosen vocational field.	3.85	3.81	3.75 (5)	3.80 (5)
The extent to which the program offers extended vocational opportunities for women.	3.68	3.91 (3)	3.62	3.69
The percent of graduates placed in jobs.	3.64	3.88 (5)	3.60	3.66
The program's ability to provide the opportunity for students to experience the adult working world without having to make a specific commitment to a job.	3.73	3.69	3.44	3.62
The program's ability to hold students who might otherwise drop out of school.	3.52	3.75	3.56	3.57
The number of disadvantaged (or low income) students served by the program.	3.59	3.86	3.32	3.53
The number of physically or mentally handicapped students served by the program.	3.34	3.51	3.25	3.33

[a]Vocational Student Survey, Part II, Question #2a.

[b]The mean ratings were computed as described for Table 10. The ratings are based upon responses from 335 public high school, 105 vocational-technical institute, and 253 community college respondents. The numbers in parentheses indicate the rank order of the top five measures of success for each respondent group.

TABLE 11B

STUDENT PREFERENCES FOR MEASURES OF SUCCESS[a]

(According to Seriousness of Vocational Interest)

Measure of Success	Mean Rating of Importance[b]		
	Serious Commitment	No Serious Commitment	Total
The amount of student satisfaction with the training program.	4.13 (1)	4.04 (1)	4.09 (1)
The percent of graduates placed in jobs that are directly related to their training.	3.96 (2)	3.91 (5)	3.93 (2)
The program's ability to develop in the student skills for getting along with all types and ages of people.	3.88 (3)	3.97 (3)	3.90 (3)
The rate at which graduates advance to more responsible positions within their chosen occupation.	3.88 (3)	3.92 (4)	3.88 (4)
The program's ability to provide the student an opportunity to earn money during his/her training.	3.69	4.02 (2)	3.80 (5)
The number of students admitted to advanced training programs in their chosen vocational field.	3.81 (5)	3.77	3.80 (5)
The extent to which the program offers extended vocational opportunities for women.	3.72	3.61	3.69
The percent of graduates placed in jobs.	3.65	3.69	3.66
The program's ability to provide the opportunity for students to experience the adult working world without having to make a specific commitment to a job.	3.55	3.74	3.62
The program's ability to hold students who might otherwise drop out of school.	3.63	3.44	3.57
The number of disadvantaged (or low income) students served by the program.	3.50	3.61	3.53
The number of physically or mentally handicapped students served by the program.	3.28	3.41	3.33

[a]Vocational Student Survey, Part II, Question #2a.

[b]The mean ratings were computed as described for Table 10. The ratings are based upon responses from 439 students indicating a serious commitment (those enrolled in a specific vocational program) and 221 students not indicating a serious vocational program commitment (taking one or more vocational classes as electives and not as part of a specific program). Thirty-three of the 693 student respondents gave no indication as to their degree of commitment to a specific vocational program. The numbers in parentheses indicate the rank order of the top five measures of success for each respondent group.

TABLE 12

EMPLOYER PREFERENCES FOR MEASURES OF SUCCESS[a]

Measures of Success	Mean Rating of Importance[b]	
	Goods-Producing Industries	Service-Producing Industries
The amount of student satisfaction with the training program.	3.77	3.84
The percent of graduates placed in jobs that are directly related to their training.	3.88 (4)	4.15 (3)
The program's ability to develop in the student skills for getting along with all types and ages of people.	4.20 (1)	4.25 (1)
The rate at which graduates advance to more responsible positions within their chosen occupation.	4.15 (2)	4.20 (2)
The program's ability to provide the student an opportunity to earn money during his/her training.	3.75	3.60
The number of students admitted to advanced training programs in their chosen vocational field.	3.60	3.89 (5)
The extent to which the program offers extended vocational opportunities for women.	3.32	3.65
The percent of graduates placed in jobs.	3.47	3.59
The program's ability to provide the opportunity for students to experience the adult working world without having to make a specific commitment to a job.	3.82 (5)	3.78
The program's ability to hold students who might otherwise drop out of school.	3.95 (3)	3.94 (4)
The number of disadvantaged (or low income) students served by the program.	3.47	3.49
The number of physically or mentally handicapped students served by the program.	3.35	3.45

[a]Employer Survey, Part II, Question #2a.

[b]The mean ratings were computed as described for Table 10. The ratings are based upon responses from 40 employers in goods-producing industries and 104 employers in service-producing industries. The numbers in parentheses indicate the rank order of the top five measures of success in each respondent group.

Before concluding this discussion of success measures, it should be noted that none of the twelve measures of success as listed was judged inappropriate by any of the respondent groups or subgroups. Even the single item receiving the least support as a success measure, namely, "the number of physically or mentally handicapped students served by the program" received a rating of 3.00 or above from all respondent subgroups covered in Tables 10, 11A, 11B, and 12. This means that all major respondent groups and subgroups indicated at least some degree of support for the twelve success measures involved.

Closely related to the question of alternative success measures is the reasons students give for selecting ocational programs and classes. From the student's perspective, a program will be successful only if it at least rtially satisfies his/her initial reasons for selecting the program or course. Recognizing this close relation-ip between "measures of success" and "reasons for selection," the Advisory Council included in its survey r students a question relating to "reasons for selection." The responses are summarized in Tables 13 and . We observe in Table 13 that prime reasons for selecting vocational programs in all three public delivery stems are "training to enter a specific field" and "training needed to advance in a chosen career field." In able 14, we see that the mean ratings for these two items are increased when we limit the respondent groups those students who have made a serious commitment by enrolling in a specific vocational program. Return-g to Table 13, we note that the public high school student is much more likely to be taking vocational classes an aid, "in holding a part-time job while furthering his/her education," than are students in the other two spondent subgroups. Students in all training areas seem to deny enrolling primarily as a result of recom-endations from adults and/or fellow students. In Table 14, we note an overall mean rating of 1.82 for this rticular reason and only one subgroup mean rating for this reason exceeds 2.00. Several vocational classes e apparently selected because of "the exploratory opportunities they provide for students." This seems par-cularly true of the service worker and equipment operator training programs. Both are shown in Table 14 have mean ratings well above the total group mean of 2.56.

Workforce Forecasts and Placement Concerns

It appears that employers, vocational graduates, and vocational students in the State of Washington do ot make extensive use of workforce forecasts in planning their own careers or in advising others. Of the three mple groups, current vocational students indicated that they made more use of workforce forecasts than did e other two. This difference, however, is quite small. Combining the data for "quite often" and "occasional" e in Table 15, we observe that students tend to utilize workforce forecasts more frequently than do either nployers or vocational graduates. The largest difference occurs between vocational students and vocational aduates where we observe a fifteen percent differential.

When asked to prioritize the allocation of possible additional funds for vocational education programs, three groups mentioned above as well as the local advisory committee respondents indicated that improv-g workforce forecasts was the least important use of any additional funds. Although all four groups indi-ted that this was the least important use of additional funds, vocational students apparently felt it was ore important than did employers, vocational graduates, or local advisory committee members. (A more tailed presentation of priorities for funding is covered in Table 19 found in the next section of this report.)

A possible explanation of the relatively low priority given to workforce forecasting may be that it is ot considered to be very useful. Of the four major respondent groups included in the survey, only employ-s and local advisory committees were asked to judge the usefulness of workforce forecasts. Only 26.4 per-nt of the employer respondents considered these forecasts to be "highly useful" or "somewhat useful" while .5 percent regarded them as "less useful" or "not at all useful." The remaining 27.1 percent were either ndecided or unable to judge (Employer Survey, Part II, Question #3a). These results suggest at least three ssible interpretations. First, many employers are aware of the forecasts, but do not consider them to be eful. Second, many employers may not know how to use these forecasts. And thirdly, many employers may ot be aware of or have ready access to workforce forecasts. This third interpretation is perhaps supported the large portion (27.1 percent) of the employers who were undecided or unable to judge the usefulness forecasts. Informal feedback from the interview team also supports the notion that many employers are ot well informed about the availability of forecast data.

In contrast to employers, local advisory committee respondents considered workforce forecasts to be ite useful. Almost 65 percent of this group responded that workforce forecasts were either "highly useful" "somewhat useful" while only 12 percent judged them as "less useful" or "not useful at all" (Local Ad-sory Committee Survey, Part II, Question #3a). Approximately 23 percent, however, were either undecided unable to judge.

Employers, vocational graduates, vocational students, and local advisory committee members indicated that "the graduate, him or herself," had the greatest responsibility for securing employment. Employers, vocational graduates, and local advisory committees, however, were slightly more assertive on this point than were vocational students. In reviewing the data in Table 16, it can be further noted that vocational students consistently ranked training institutions, public employment agencies, and private employment agencies as having greater placement responsibilities than did the other three respondent groups. This is, of course, an expected consequence of their lesser mean score for "the graduate himself or herself."

The data in Table 17 indicates that students are more concerned with increasing the placement services offered by vocational training institutions than are the other respondent groups. It is interesting to note that only 1.6 percent of the students surveyed did not favor increasing placement services while 11.1 percent of both employers and graduates and 12.5 percent of the local advisory committee respondents indicated that placement services should not be increased. The data in Table 19 also indicates that students more than employers, graduates, or local advisory committee respondents, desire an expansion in placement services. The greater emphasis on placement concerns expressed by students may well be a function of the current state of the economy and the fear that they will not be able to find positions for which they have been trained upon graduation.

TABLE 13

STUDENT REASONS FOR SELECTING VOCATIONAL CLASSES[a]

Reason for Selection	Mean Rating of Importance[b]			
	Public High School	Vocational-Technical Institute	Community College	Total
Vocational classes will give me needed training to enter a specific career field.	2.76 (1)	2.94 (1)	2.85 (1)	2.82 (1)
Vocational classes will give me training needed to advance in my chosen career field.	2.71 (3)	2.92 (2)	2.82 (2)	2.78 (2)
Vocational classes give me an opportunity to explore areas of personal interest.	2.57 (4)	2.45 (3)	2.54 (3)	2.54 (3)
Vocational classes teach me things that I might use in a part-time job while furthering my education.	2.72 (2)	2.32 (5)	2.31 (4)	2.51 (4)
Vocational classes provide practical experiences which will be useful to me but not necessarily as part of my career.	2.33 (5)	2.33 (4)	2.31 (4)	2.32 (5)
Vocational classes are more interesting than other classes offered in this school.	2.02 (6)	1.99 (7)	1.78 (6)	1.94 (6)
Vocational classes were recommended by adults and/or other students.	1.82 (7)	2.00 (6)	1.69 (7)	1.80 (7)

[a]Student Survey, Part II, Question #3a.

[b]Each student rated the importance of each "reason for selection" on the following scale:

3—Very Important
2—Of Some Importance
1—Not Important

The "reasons for selection" are listed here and in Table 14 according to the rank order of importance for the total student respondent group of 693. This total includes 335 in public high schools, 105 in vocational-technical institutes, and 253 in community colleges. The numbers in parentheses indicate the rank order for each of the respondent groups.

TABLE 14

REASONS FOR SELECTING CLASSES FOR STUDENTS WITH SERIOUS VOCATIONAL PROGRAM COMMITMENTS[a]

(According to Occupational Area)

Reason for Selection	Mean Rating of Importance[b]						
	Clerical (77)	Sales (72)	Craftsman (57)	Equipment Operator (28)	Technician (72)	Service Worker (12)	Total[c] (439)
Vocational classes will give me needed training to enter a specific career field.	2.94	2.68	2.86	2.93	2.87	3.00	2.87
Vocational classes will give me training needed to advance in my chosen career field.	2.93	2.70	2.79	2.71	2.83	2.83	2.83
Vocational classes give me an opportunity to explore areas of personal interest.	2.55	2.55	2.61	2.75	2.40	2.92	2.56
Vocational classes teach me things that I might use in a part-time job while furthering my education.	2.53	2.51	2.57	2.82	2.12	2.67	2.45
Vocational classes provide practical experiences which will be useful to me but not necessarily as part of my career.	2.28	2.37	2.47	2.54	2.30	2.33	2.35
Vocational classes are more interesting than other classes offered in this school.	1.75	1.89	2.32	2.14	1.84	2.17	1.95
Vocational classes were recommended by adults and/or other students.	1.84	1.82	2.09	1.89	1.68	1.92	1.82

[a]Student Survey, Part II, Question #3a. This table excludes from the total student sample of 693 those 221 students who are taking vocational classes as electives and who are not enrolled as part of a regular vocational program.

[b]The mean rating of importance is computed as described in Table 13. The numbers in parentheses indicate the number of respondents in each training category.

[c]The total program enrollment exceeds the individual program totals because it includes those who classified themselves in the "other" program.

TABLE 15

USE OF WORKFORCE FORECASTS IN PLANNING ONE'S OWN CAREER OR IN ADVISING OTHERS*

Response Options	Percentage Breakdown by Respondent Groups		
	Employers	Vocational Graduates	Students
Quite Often	11.1	10.4	13.0
Occasionally	40.3	33.3	45.6
Never	48.6	54.9	39.1
No Response	0.0	1.4	2.3

*Employer Survey, Part II, Question #3c; Graduate Survey, Part II, Question #3a; Student Survey, Part II, Question #4a.

23

TABLE 16

RESPONSIBILITY OF VARIOUS SOURCES FOR PLACING VOCATIONALLY TRAINED GRADUATES IN JOBS[a]

Source	Mean Scores[b]			
	Employers	Vocational Graduates	Students	Local Advisory Committee
The Graduate Him or Herself	3.70	3.65	3.27	3.81
The Training Institutions	2.71	2.81	2.85	2.77
Public Employment Agencies—Such as State Employment Security Department	2.04	2.01	2.18	1.95
Private Employment Agencies	1.56	1.53	1.81	1.49

[a]Employer, Graduate, and Local Advisory Committee Surveys, Part II, Question #4a; Student Survey, Part II, Question #5a.

[b]Each employer, graduate, and student respondent was asked to rank order the four sources listed above. A value of four, three, two, or one was assigned to each source by each of the above-mentioned respondent groups. Four indicated the most responsibility and one the least responsibility. Local Advisory Committee respondents ranked each source in the reverse order with one representing the most responsibility. Their scores were converted to be consistent with the other three groups.

TABLE 17

EXTENT OF SUPPORT FOR INCREASING THE PLACEMENT SERVICES OF PUBLIC INSTITUTIONS PROVIDING VOCATIONAL TRAINING*

Response Options	Percentage Breakdown by Respondent Groups			
	Employers	Vocational Graduates	Students	Local Advisory Committee
Very Much	42.4	43.8	55.7	43.3
Somewhat	37.5	37.5	29.6	40.0
Not At All	11.1	11.1	1.6	12.5
No Opinon	7.6	7.6	11.4	3.3
No Response	1.4	0.0	1.7	0.9

*Employer, Graduate, and Local Advisory Committee Surveys, Part II, Question #4b; Student Survey, Part II, Question #5b.

Future Direction for Vocational Education

One objective of the Advisory Council Survey was that of obtaining views of key groups as to the future direction for vocational education in the State of Washington. For this reason, questions relating to both policy and spending priorities were included in the different survey instruments. In Table 18, we see a summary of viewpoints for each of the major respondent groups. The high mean agreement ratings for "earlier emphasis on career concerns" (Statement #1, Table 18) indicates generally strong support for recent career education efforts in the common schools of our state. The students are less enthusiastic than the other three groups regarding, "a requirement for work experience" (Statement #2, Table 18); however, even the students' mean agreement rating of 3.24 indicates modest support for such a requirement. Many of those expressing opposition to the requirement thought it should be encouraged but just stopped short of suggesting that it be an absolute requirement.

The concept of "reimbursing employer agencies for providing job training stations" (Statement #3, Table 18) gained a neutral to slightly-negative response from the four respondent groups. Opposition is particularly strong among local advisory committee members. A closer look shows this opposition to be particularly strong among the 17 members of this respondent group who represent the employees. This latter subgroup had a mean agreement rating of 2.29 on the statement. It is also interesting to note that within the employer and vocational graduate groups those associated with goods-producing industries were more supportive of this concept of "reimbursing employing agencies for providing job training stations" than were their counterparts in the service-producing sectors. The apparent inconsistency of response to Statements #2 and #3 in Table 18 is undoubtedly bothersome to those involved in vocational planning who find it increasingly difficult to locate job stations for the large number of students requesting them. Many would argue that any serious implementation of "required work experience" (Statement #2, Table 18) may necessitate "reimbursement of employing agencies from public tax funds" (Statement #3, Table 18). Unless current attitudes become more accepting of this latter concept, progress may be extremely slow in providing paid and unpaid work experience for all students. Interestingly, we observe in Table 19 that the concept of "subsidizing industries for assisting with vocational training efforts" was ranked among the top three spending priorities for both employer and vocational graduates groups. Those favoring such subsidies are apparently so strong in their feelings that they tend to raise the percentage allocated to this functional area.

"Exchange programs between educators and labor and industry personnel" (Statement #4, Table 18) are strongly supported by all respondent groups. Employers and local advisory committee members expressed more support for this idea than the other two major respondent groups. Many respondents favoring the exchange idea expressed the hope that such exchanges could keep educators better informed about changes in the real world of work.

The present practice of "having community advisory committees" (Statement #5, Table 18) is supported by all four major respondent groups. Support is especially strong among employers and those who are already serving as members of local community advisory committees. In most cases, these community advisory committees meet rather infrequently (less than three times each year according to Local Advisory Committee Survey, Part I, Question #3) and their major activities include developing training programs, suggesting equipment and tools to be purchased for programs, counseling vocational instructors, and speaking to vocational classes (Local Advisory Committee Survey, Part II, Question #7b).

No statement received stronger overall support than the one calling for "encouragement of planning conferences for labor, industry and education personnel" (Statement #6, Table 18). Since such planning activities parallel the intended work of community advisory committees and call for the same broad-based membership, it is understandable that the responses on this particular statement correlate rather highly with those on the previous statement supporting "the use of community advisory committees."

Turning to Table 19, we note priorities for future spending as summarized for each of the major respondent groups. "Adding training programs and staff/equipment in areas of need" was clearly the top priority for future spending. Students and, to a lesser extent, vocational graduates, desired "expanded placement services for vocational graduates." This desire for "expanded placement services for vocational graduates" was particularly strong among students currently enrolled in vocational-technical institutes. The functional area ranking second in priority for the employer group was "subsidizing industries for assisting with vocational training efforts." The second priority for local advisory committee members was "improving equipment inventories in selected ongoing program areas." "Reducing tuition and tax funds now required to support vocational programs" was high on the student list, especially for the high school group which allotted this function 16.5 percent as contrasted with the 13.7 average for all students. Improving workforce forecasting services received the lowest rating as far as future spending was concerned and many respondents seemed to indicate a certain frustration in even trying to forecast job opportunities in such uncertain times.

TABLE 18

PROPOSALS RELATING TO CAREER AND VOCATIONAL PROGRAMS[a]

Statement	Mean Agreement Rating[b]			
	Employers	Vocational Graduates	Students	Local Advisory Committee
1. The recent trend toward emphasizing career awareness at the elementary level and career exploration at the junior high level is a good thing.	4.10	3.92	3.74	3.57
2. Every student graduating from high school should be required as part of his or her basic program to participate in some type of paid or unpaid work experience.	3.63	3.54	3.24	3.37
3. Employing agencies which provide job training stations for students should be reimbursed for their services from public tax funds.	2.83	2.78	3.14	2.55
4. We should encourage exchange programs whereby counselors and teachers spend time working for pay outside of education and labor and industry personnel are hired to teach vocational skills in the schools.	4.13	3.96	3.51	4.08
5. Every vocational program should have a community advisory committee made up of representation from both labor and industry.	4.28	4.07	3.82	4.49
6. We should encourage area, county, and state conferences where labor, industry, and education personnel work together in planning future training programs and job placement procedures.	4.19	4.17	4.01	4.16

[a]Employer and Vocational Graduate Surveys, Part II, #5a and 7; Vocational Student Survey, Part II, #6b and 7; Local Advisory Committee Survey, Part II, 5 and 6.

[b]Each respondent was asked to indicate the extent of his/her agreement with each statement using the following scale:

5 — Strongly Agree
4 — Agree
3 — Undecided
2 — Disagree
1 — Strongly Disagree

TABLE 19

PREFERRED ALLOCATION OF FUNDS FOR IMPROVING VOCATIONAL EDUCATION[a]

Functional Areas	Percentage Allocation by Functional Area[b]			
	Employers	Vocational Graduates	Students	Local Advisory Committee
Adding training programs and staff/ equipment in areas of need.	29.2	29.2	22.6	28.3
Subsidizing industries for assisting with vocational training efforts.	16.6	13.6	12.3	10.8
Improved counseling services for vocational students.	14.8	12.8	12.2	12.2
Improving equipment inventories in selected ongoing program areas.	11.8	14.0	13.2	19.6
Expanded placement services for vocational graduates.	11.6	12.2	18.0	11.3
Reducing tuition and tax funds now required to support vocational programs.	9.7	12.3	13.7	10.2
Improving workforce forecasting services at state and local levels.	6.3	5.9	8.0	7.6

[a]Employer Survey, Part II, Question #4c; Vocational Graduate and Vocational Student Surveys, Part II, Question #4d; and Local Advisory Committee Survey, Part II, Question #4c.

[b]Each respondent was given 100 percent of a million dollars to allocate over the seven functional areas. The average percentages for each functional area and for each respondent group is presented here. When the total of all percentage allocations for a respondent group differed from 100.0, all were multiplied by a constant so as to total 100.0 and permit comparisons between groups. The functional areas are listed in order of priority for the employer respondent group.

RECOMMENDATIONS AND AREAS FOR FURTHER STUDY

The survey results presented in previous sections of this report lead to several suggestions for future action. Some issues raised in the survey are of present consequence and therefore suggest immediate attention by local schools and agencies involved in delivering vocational services. Other issues or concerns merit further examination and discussion by those associated with planning vocational programs at both the state and local level. As a means of summarizing both immediate and long-range suggestions, the Advisory Council presents the following summary recommendations:

Recommendation #1 — THE COORDINATING COUNCIL FOR OCCUPATIONAL EDUCATION ISSUE A POLICY, AND THE LEGISLATURE CONSIDER A LAW, THAT FORMALLY BROADENS THE SCOPE OF SUCCESS MEASURES USED TO EVALUATE VOCATIONAL EDUCATION PROGRAMS.

The federal thrust of "placement in the field for which trained" should remain as top priority, but it should be supplemented with other expected outcomes to meet the more specific needs of the State of Washington. Those measures receiving greatest support among employers, vocational graduates, current students, and local advisory committee members include "the program's ability to develop in the student skills for getting along with all types and ages of people" and "the amount of student satisfaction with the training program." A more complete priority list of success measures is found in Table 10 of this report.

The need for looking beyond placement experience is further explained by the fact that large numbers of students enrolled in vocational programs, particularly at the public high school level, are still undecided about their future career plans and are taking vocational courses as a way of exploring possibilities rather than as an entry route to a particular job or career field. Of the students sampled in this study (a sample of 693 vocational students judged to be representative of the statewide vocational enrollments), approximately one-third indicated that they were not enrolled in a specific vocational program but were rather taking vocational courses as electives. This exploratory or elective group comprised over 50 percent of the respondents enrolled in public high schools.

The measures of success considered in the study are not particularly novel, but formal recognition of identified measures in addition to placement will allow realistic assessment of, and planning for, vocational education.

Recommendation #2 — THE COORDINATING COUNCIL FOR OCCUPATIONAL EDUCATION ESTABLISH, AS A PART OF THE STATE PLAN FOR VOCATIONAL EDUCATION, REASONABLE SUCCESS MEASURES OR EXPECTATIONS FOR VOCATIONAL EDUCATION AND SEE THAT RELIABLE INFORMATION REGARDING ATTAINMENT OF THOSE SUCCESS MEASURES IS COLLECTED AND ANALYZED.

Broadening the list of success measures is of little value unless they are accepted as standards for achievement. The Coordinating Council should establish the standards, design techniques of measurement, and hold appropriate agencies accountable for the expanded results. While accountability will be made more difficult with multiple success measures, it is important that the challenge be accepted and that progress is made toward constructive evaluation at both the state and local levels.

The use of multiple success measures for vocational education can only be meaningful if reliable data associated with those measures is collected and analyzed. This will depend upon new and better approaches to data collection.

Recommendation #3 — THE COORDINATING COUNCIL FOR OCCUPATIONAL EDUCATION, STATE BOARD FOR COMMUNITY COLLEGE EDUCATION, STATE BOARD OF EDUCATION, AND THE COUNCIL ON HIGHER EDUCATION ADOPT THE OFFICE OF EDUCATION'S POLICY STATEMENT ON CAREER EDUCATION AND PROVIDE UNIFIED LEADERSHIP FOR THE IMPLEMENTATION OF CAREER EDUCATION.

Over 60 percent of the survey respondents either "strongly agreed" or "agreed" that career development activities should take place in our schools. The Office of Education, Department of Health, Education and Welfare's acceptance in November, 1974 of a policy paper on career education settles the controversy over a definition. Furthermore, the National Advisory Council on Vocational Education in its Eighth Report, *National Policy on Career Education,* clarifies the distinction between career education and vocational education. Based upon this strong support within our state and nationally, formal recognition and policy should emanate from the appropriate bodies cited above.

Recommendation #4 — THE COORDINATING COUNCIL FOR OCCUPATIONAL EDUCATION PLAN A SERIES OF WORKSHOPS/CONFERENCES WITH THE LEADERS OF LABOR, INDUSTRY, BUSINESS AND GOVERNMENT TO DEVELOP PLANNING STRATEGIES, PROGRAMS OF ARTICULATION AND EXCHANGE BETWEEN USER GROUPS AND EDUCATORS.

Of all the issues raised in the Advisory Council survey, none received a more positive overall response than the call for joint planning by labor, industry and educational personnel. Table 18 illustrates a mean support rating of over 4 on a 5-point scale. Many of the issues raised in the survey speak to the problem of "bridging the gap" between training and the user groups. An adequate system of local advisory committees does now exist, but it appears that a statewide perception is needed to complement the local view.

One key area of the survey that needs further exploration is exchange programs between employers and educators. Respondents indicated enthusiastic support of this concept. Such programs could be a valuable means of encouraging closer working relationships and mutual respect.

Planned conferences should include input from the state's Executive and Legislative branches as well as leaders from education, business, industry and labor. The Advisory Council with its limited resources is willing to contribute and actively work toward the planning and implementation of this recommendation.

Recommendation #5 — THE COORDINATING COUNCIL FOR OCCUPATIONAL EDUCATION UNDERTAKE A SPECIAL EFFORT TO IDENTIFY AND FULFILL THE TRAINING REQUIREMENTS NECESSARY FOR PEOPLE WITH SPECIAL NEEDS.

In the survey an ambivalence becomes apparent in the way that user groups perceive those with special problems. In one part of the study (Table 10), holding on to the potential dropout receives relatively strong support. On the other hand, the physically or mentally handicapped, another special problems group, receives a low level of concern from all the user groups. It is evident that industry, as well as education, prefers to work with those that have the best chance of success.

The Coordinating Council is not solely responsible for training of persons with special needs. Employers and other groups must share in the responsibility of developing alternative ways of dealing with those having special needs. The Coordinating Council is being challenged because leadership must be generated on a statewide level that will spearhead discussions and action.

Recommendation #6 — THE COORDINATING COUNCIL FOR OCCUPATIONAL EDUCATION PROVIDE LEADERSHIP IN IMPROVING PLACEMENT SERVICES IN OUR SCHOOLS AND COLLEGES BY MONITORING PLACEMENT ACTIVITIES, STUDYING THE EFFECTIVENESS OF PLACEMENT SYSTEMS AND RECOMMENDING IMPROVEMENTS.

When current vocational students were asked the extent to which they favored increasing placement services in public institutions providing vocational training, 56 percent responded "very much". Another 30 percent indicated "somewhat" and only 2 percent responded "not at all." These results which are detailed for all respondent groups in Table 17 indicated a strong student concern for better placement opportunities. This is also seen in the fact that students placed "expanded placement services for vocational graduates" as their second priority for future spending in vocational education.

Recognizing this perceived need for expanded placement services, the Advisory Council urges state vocational leaders to study the feasibility of expanding placement services in certain of our institutions and/or public agencies. Part of the feasibility must necessarily involve an assessment as to whether the job search process is in fact aided by additional services and whether the amount of aid justifies the additional cost. A pilot research effort may make sense as a means of exploring possibilities in this area.

Recommendation #7 — STATE AND LOCAL VOCATIONAL LEADERS ENCOURAGE A MORE ACTIVE ROLE FOR LOCAL ADVISORY COMMITTEES.

The data in Table 18 indicate that both employers and local advisory committee members ranked Statement 5 — the one calling for local community advisory committees which include representation from labor and industry — as extremely important. Vocational graduates and current vocational students also considered such committees to be important with each of these two respondent groups ranking Statement 5 as the second most important. Though local advisory committees are required for each vocational program, they apparently could be used more effectively. As noted in the text, local advisory committees in general meet rather infrequently. The strong support for local advisory committees suggests that their work is considered important enough to warrant their greater involvement in vocational planning.

Due to the nature of the study, the foregoing recommendations are neither complete nor all inclusive. Other pertinent questions were raised such as why workforce forecasts are not used to a greater extent by employers, graduates and students. Such questions could be explored in conferences as suggested in recommendation #4 or by more formal analysis. The Advisory Council earnestly hopes that this report will serve as a basis for much serious discussion and further study.

INDEX OF TABLES AND APPENDICES

Table	**Title**	*Page*
1	Sample Distribution of Employers by Geographic Area	3
2	Sample Distribution by Size of Firm	3
3	Sample Distribution by Type of Firm or Agency	4
4	Source of Graduate's Vocational Training	5
5	Student Respondents by School Type and Occupational Training Area	5
6	Views on Adequacy of Vocational Programs	6
7	Agency Appropriateness for Providing Vocational Training	7
8A	Institutions Judged to Provide the Best Vocational Training (According to Student's School Identification)	7
8B	Institutions Judged to Provide the Best Vocational Training (According to Student's Training Area)	9
9	Training Program Preferences as Expressed by Employers	9
10	Measures of Success for Vocational Training Programs	11
11A	Student Preferences for Measures of Success (According to Type of Institution)	12
11B	Student Preferences for Measures of Success (According to Seriousness of Vocational Interest)	13
12	Employer Preferences for Measures of Success	14
13	Student Reasons for Selecting Vocational Classes	16
14	Reasons for Selecting Classes for Students With Serious Vocational Program Commitments	17
15	Use of Workforce Forecasts in Planning One's Own Career or in Advising Others	17
16	Responsibility of Various Sources for Placing Vocationally Trained Graduates in Jobs	18
17	Extent of Support for Increasing the Placement Services of Public Institutions Providing Vocational Training	18
18	Proposals Relating to Career and Vocational Programs	20
19	Preferred Allocation of Funds for Improving Vocational Education	21

Appendix	**Title**	*Page*
A	Vocational Education Outcomes Study Plan	27
B1	Employer Survey	29
B2	Vocational Graduate Survey	35
B3	Vocational Student Survey	41
B4	Local Advisory Committee Survey	47
C	Firms and Agencies in Employer and Graduate Samples	53
D	Educational Institutions and Classes Sampled	59

APPENDIX A

Vocational Education Outcomes Study Plan

Study Plan

Activity	Source of Background Information Required	Date to Be Completed	Person(s) Responsible	Comment
Design interview guides and questionnaires which solicit the following information from respondents. 1) Viewpoints on what agencies or institutions should provide vocational education. 2) Preferred measures of success for vocational education. 3) Importance of workforce forecasting and usefulness of present methods. 4) Placement responsibilities in vocational education and desirability of extending present services. 5) Attitudes toward vocational programs for special need groups (e.g., physically handicapped, minorities) and related affirmative action requirements. 6) Attitudes toward preferred student ages for vocational programs.	Review other surveys and work through question wording with Advisory Council Steering Committee.	August 15	BSSR	Separate instruments will be used for the manager, vocational graduate, and present student groups.
Select sample of 150 businesses (one manager and one vocational education graduate from each) and schedule appointments.	Lists of industries as available with the Employment Security Department.	Sept. 1	BSSR	An effort will be made to pick recent vocational graduates (those completing programs within the past 4 years) and a representative sample from high school, vocational technical, and community college programs will be assured.

Study Plan — Page 2

Activity	Source of Background Information Required	Date to Be Completed	Person(s) Responsible	Comment
Select sample of 40 vocational classes (in a wide variety of training areas and institutions) and gain institutional approval to give questionnaire to students.	C.C.O.E. Records	Sept. 30	Putman, Yormark	
Select sample of 125 members of local vocational advisory committees.	Contact local school personnel for suggested names.	Sept. 30	Putman	Rural, urban, and suburban interests will be represented in the total sample.
Conduct interviews with managers and vocational program graduates.	None	Oct. 15	BSSR	
Administer questionnaires in selected vocational classes and mail questionnaires to advisory council members.	None	Oct. 31	BSSR	
Collect existing studies and documents which relate to measures of vocational education success, review these materials, and suggest additional evaluative information for assessing success of vocational programs.	C.C.O.E., National Advisory Council on Vocational Education, Employment Security, etc.	Oct. 1	Putman, Yormark	
Prepare draft of Advisory Council Annual Report for submission to total membership and develop plan for workshop activities involving user groups, vocational educators and legislators.	None	Nov. 15	Putman, Johnson	
Conduct workshop(s) for the purpose of examining the results of survey activities and of obtaining organizational input on success measures for vocational education.	None	Feb. 15	Putman, Johnson	

APPENDIX B1

EMPLOYER SURVEY

Part I: Background Information

Name of Firm ..... Address of Firm .....

Respondent Position in Firm ..... Number of Years With Firm .....

Circle the one which *most* accurately classifies your firm:

A. Construction
B. Manufacturing
C. Transportation
D. Utility and sanitary services
E. Wholesale trade
F. Retail trade
G. Finance and insurance
H. Business and repair service
I. Entertainment and recreation services
J. Welfare and religious services
K. Legal, engineering, and professional services
L. Personal services
M. Health services
N. Education services
O. Public administration
P. Agriculture, mining, and fishing
Q. Any other not represented above:

What is your best estimate of the total number of employees in your firm? .....

Approximately what percent of the employees in your firm would fall under *each* of the categories below? (Put 0% when appropriate.)

..... Professional and technical
..... Managers and proprietors
..... Clerical workers
..... Sales workers
..... Craftsmen and foremen
..... Operatives
..... Nonfarm laborers
..... Service workers
..... Farm workers

Approximately how many new employees (from outside the firm) do you hire each year?

Part II: Viewpoints on Vocational Programs and Services

1a. At the present time, there are various agencies which conduct specific vocational training programs (see those listed at the right). How would you judge the appropriateness of *each* in providing vocational training?

1 = Highly appropriate
2 = Somewhat appropriate
3 = Undecided or unable to judge
4 = Somewhat inappropriate
5 = Highly inappropriate

..... Public high school

..... Vocational-technical institutes

..... Community colleges

..... Federal manpower training programs

..... Private vocational schools

b. For as many of the above agencies as possible, please indicate any particular reasons for your judgment. (These reasons are particularly important for those judged inappropriate for providing vocational training.)

Public high school:
Vocational-technical institutes:
Community colleges:
Federal manpower training programs:
Private vocational schools:

c. If you were involved in hiring each of the following types of employees, from what training program would you prefer each to have graduated? Each may be assigned more than one school type if desired.)

Employee Type	None Employed	No Particular Preference	Preference Indicated* 4-Year College	Community College	Vocational Technical Institute	Public High School	Private Vocational School	Federal Manpower Training	Other
Clerical									
Sales									
Craftsmen									
Equipment operators									
Technicians									
Service workers									

* 1 if it is a slight preference and 2 if it is a strong preference. More than one choice may be rated here.

2a. Each of the following has been used—at one time or another—as a measure of "success" for a given vocational training program. To what extent do you agree or disagree with each as a measure of "success"? (Circle the appropriate response in each case.)

SA = Strongly Agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree

The percent of graduates placed in jobs	SA	A	U	D	SD
The percent of graduates placed in jobs that are directly related to their training	SA	A	U	D	SD
The amount of student satisfaction with the training program	SA	A	U	D	SD
The extent to which the program offers extended vocational opportunities for women	SA	A	U	D	SD

The program's ability to hold students who might otherwise drop out of school	SA	A	U	D	SD
The program's ability to provide the opportunity for students to experience the adult working world without having to make a specific commitment to a job	SA	A	U	D	SD
The program's ability to provide the student an opportunity to earn money during his or her training	SA	A	U	D	SD
The number of physically or mentally handicapped students served by the program	SA	A	U	D	SD
The number of disadvantaged (or low income) students served by the program	SA	A	U	D	SD
The program's ability to develop in the student skills for getting along with all types and ages of people	SA	A	U	D	SD
The number of students admitted to advanced training programs in their chosen vocational field	SA	A	U	D	SD
The rate at which graduates advance to more responsible positions within their chosen occupation	SA	A	U	D	SD

b. Please indicate any other measures of "success" you feel might be appropriate:

3a. Various agencies attempt to forecast workforce requirements as a guide to institutions providing vocational training. How useful do you think these forecasts have been?
(Circle a number.)

1 Highly useful
2 Somewhat useful
3 Undecided or unable to judge
4 Less useful
5 Not at all useful

---

b. Do you have any suggestions for improving the forecast of tomorrow's job requirements?

---

c. How frequently have you used information on workforce forecasts in planning your own career or in advising others?
(Circle a number.)

1 Quite often
2 Occasionally
3 Never

4a. How would you rank the following in terms of their responsibility in finding jobs for vocationally trained persons? (4 should have greatest responsibility and 1 should have least.)

_____ The graduate him or herself
_____ The training institutions
_____ Private employment agencies
_____ Public employment agencies—such as State Employment Security Department

---

b. To what extent would you favor increasing the placement services of public institutions providing vocational training?

1 Very much
2 Somewhat
3 Not at all
4 No opinion

---

c. If the state had an additional million dollars to spend on improving vocational education programs, what percent of the total would you spend on *each* of the following functions? (Put 0% when appropriate and make certain to use the entire 100% allocation.)

_____ Improved counseling services for vocational students

_____ Expanded placement services for vocational graduates

_____ Adding training programs and staff/equipment in areas of need

_____ Improving equipment inventories in selected ongoing program areas

_____ Improving workforce forecasting services at state and local levels

_____ Subsidizing industries for assisting with vocational training efforts

_____ Reducing tuition and tax funds now required to support vocational programs

---

d. Are there any other major areas which should be considered in the distribution of program improvement funds? (Please list on reverse side of page.)

5a. Throughout the State of Washington as well as most of the United States, there is a trend toward emphasizing career experiences at an increasingly earlier age (e.g., career awareness at elementary and career exploration at the junior high level). How strongly do you agree or disagree with this increased emphasis on career concerns at younger age levels?

SA A U D SD

---

b. The age of job applicants is sometimes important to employers. How strongly do you agree or disagree with the statement—"Most employers when choosing between an 18 and 22 year old with similar job skills and training will choose the (younger, older) of the two applicants.

SA A U D SD

---

6. Each of the following statements or proposals has been made regarding career and vocational programs. To what extent do you agree or disagree with each? (Circle the appropriate response in each case.)

Every vocational program should have a community advisory committee made up of representation from both labor and industry. SA A U D SD

We should encourage exchange programs whereby counselors and teachers spend time working for pay outside of education and labor and industry personnel are hired to teach vocational skills in the schools. SA A U D SD

Every student graduating from high school should be required as part of his or her basic program to participate in some type of paid or unpaid work experience. SA A U D SD

Students trained in specific vocational programs are better employees than those not receiving such training.	SA	A	U	D	SD
We should encourage area, county, and state conferences where labor, industry, and education personnel work together in planning future training programs and job placement procedures.	SA	A	U	D	SD
Employing agencies which provide job training stations for students should be reimbursed for their services from public tax funds.	SA	A	U	D	SD

7a. Which of the following *best* represents your view for selecting and training handicapped students? (Check the appropriate space.)

_____ Admit only the number who can be easily placed in jobs, and provide some form of public assistance for the others.

_____ Admit all who apply and make a reasonable effort to place them in jobs appropriate to their skill level.

_____ Aggressively recruit these students to vocational programs and make every effort to place them in jobs appropriate to their skill level.

_____ Other (Please explain.)

---

b. Which of the following *best* represents your view of vocational programs in Washington State? (Check the appropriate response category and record any suggested changes/improvements in the space immediately following the selected response.)

_____ Vocational programs are not at all adequate and major changes are needed in current approaches.

_____ Vocational programs are adequate but definite improvements are needed.

_____ Vocational programs and services are really quite adequate and very little in the way of improvement is needed.

APPENDIX B2

VOCATIONAL GRADUATE SURVEY

Part I: Background Information

Name of Firm ..... Address of Firm .....

Respondent Position in Firm ..... Number of Years With Firm .....

Circle the number(s) corresponding to those institutions in which you received vocational training:

1. Public High School
2. Vocational-Technical Institute
3. Community College
4. Federal Manpower Training
5. Private Vocational School
6. Other (Please specify.)

.....

How many full years of vocational training have you acquired? .....

What was the nature of your vocational training? (If you attended more than one program or school, please indicate your areas of training in each.)

Part II: Viewpoints on Vocational Programs and Services

1a. At the present time, there are various agencies which conduct specific vocational training programs (see those listed at the right). How would you judge the appropriateness of *each* in providing vocational training?

1 = Highly appropriate
2 = Somewhat appropriate
3 = Undecided or unable to judge
4 = Somewhat inappropriate
5 = Highly inappropriate

..... Public high school

..... Vocational-technical institutes

..... Community colleges

..... Federal manpower training programs

..... Private vocational schools

b. For as many of the above agencies as possible, please indicate any particular reasons for your judgment. (These reasons are particularly important for those judged inappropriate for providing vocational training.)

Public high school:
Vocational-technical institutes:
Community colleges:
Federal manpower training programs:
Private vocational schools:

c. If you were involved in hiring each of the following types of employees, from what training program would you prefer each to have graduated? (Each may be assigned more than one school type if desired.)

Employee Type	None Employed	No Particular Preference	Preference Indicated*						
			4-Year College	Community College	Vocational Technical Institute	Public High School	Private Vocational School	Federal Manpower Training	Other
Clerical									
Sales									
Craftsmen									
Equipment operators									
Technicians									
Service workers									

* 1 if it is a slight preference and 2 if it is a strong preference. More than one choice may be rated here.

2a. Each of the following has been used—at one time or another—as a measure of "success" for a given vocational training program. To what extent do you agree or disagree with each as a measure of "success"? (Circle the appropriate response in each case.)

SA = Strongly Agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree

The percent of graduates placed in jobs	SA	A	U	D	SD
The percent of graduates placed in jobs that are directly related to their training	SA	A	U	D	SD
The amount of student satisfaction with the training program	SA	A	U	D	SD
The extent to which the program offers extended vocational opportunities for women	SA	A	U	D	SD
The program's ability to hold students who might otherwise drop out of school	SA	A	U	D	SD
The program's ability to provide the opportunity for students to experience the adult working world without having to make a specific commitment to a job	SA	A	U	D	SD
The program's ability to provide the student the opportunity to earn money during his or her training	SA	A	U	D	SD
The number of physically or mentally handicapped students served by the program	SA	A	U	D	SD
The number of disadvantaged (or low income) students served by the program	SA	A	U	D	SD

The program's ability to develop in the student skills for getting along with all types and ages of people	SA	A	U	D	SD
The number of students admitted to advanced training programs in their chosen vocational field	SA	A	U	D	SD
The rate at which graduates advance to more responsible positions within their chosen occupation	SA	A	U	D	SD

b. Please indicate any other measures of "success" you feel might be appropriate:

3a. Various agencies attempt to forecast workforce requirements as a guide to both institutions and individuals. How frequently have you used information on workforce forecasts in planning your own career or in advising others? (Circle a number.)

1 Quite often
2 Occasionally
3 Never

b. Do you have any suggestions for improving the forecast of tomorrow's job requirements?

4a. How would you rank the following in terms of their responsibility in finding jobs for vocationally trained persons? (4 should have greatest responsibility and 1 should have least.)

..... The graduate him or herself
..... The training institutions
..... Private employment agencies
..... Public employment agencies—such as State Employment Security Department

b. To what extent would you favor increasing the placement services of public institutions providing vocational training?

1 Very much
2 Somewhat
3 Not at all
4 No opinion

c. From which of the three sources as listed have you received the most useful information about career choice. (Circle exactly three numbers.)

1 Teachers
2 Printed materials
3 Fellow students
4 Counselors
5 Parents
6 Other Adults
7 Other (Specify) _____

d. If the state had an additional million dollars to spend on improving vocational education programs, what percent of the total would you spend on *each* of the following functions? (Put 0% when appropriate and make certain to use the entire 100% allocation.)

_____ Improved counseling services for vocational students

_____ Expanded placement services for vocational graduates

_____ Adding training programs and staff/equipment in areas of need

_____ Improving equipment inventories in selected ongoing program areas

_____ Improving workforce forecasting services at state and local levels

_____ Subsidizing industries for assisting with vocational training efforts

_____ Reducing tuition and tax funds now required to support vocational programs

---

e. Are there any other major areas which should be considered in the distribution of program improvement funds? (Please list on reverse side of page.)

5a. Throughout the State of Washington as well as most of the United States, there is a trend toward emphasizing career experiences at an increasingly earlier age (e.g., career awareness at elementary and career exploration at the junior high level). How strongly do you agree or disagree with this increased emphasis on career concerns at younger age levels?

SA A U D SD

---

b. The age of job applicants is sometimes important to employers. How strongly do you agree or disagree with the statement—"Most employers when choosing between an 18 and 22 year old with similar job skills and training will choose the (younger, older) of the two applicants.

SA A U D SD

---

6. Each of the following statements or proposals has been made regarding career and vocational programs. To what extent do you agree or disagree with each? (Circle the appropriate response in each case.)

Every vocational program should have a community advisory committee made up of representation from both labor and industry.	SA	A	U	D	SD
We should encourage exchange programs whereby counselors and teachers spend time working for pay outside of education and labor and industry personnel are hired to teach vocational skills in the schools.	SA	A	U	D	SD
Every student graduating from high school should be required as part of his or her basic program to participate in some type of paid or unpaid work experience.	SA	A	U	D	SD
Students trained in specific vocational programs are better employees than those not receiving such training.	SA	A	U	D	SD

We should encourage area, county, and state conferences where labor, industry, and education personnel work together in planning future training programs and job placement procedures. SA A U D SD

Employing agencies which provide job training stations for students should be reimbursed for their services from public tax funds. SA A U D SD

7a. Which of the following *best* represents your view for selecting and training handicapped students? (Check the appropriate space.)

..... Admit only the number who can be easily placed in jobs, and provide some form of public assistance for the others.

..... Admit all who apply and make a reasonable effort to place them in jobs appropriate to their skill level.

..... Aggressively recruit these students to vocational programs and make every effort to place them in jobs appropriate to their skill level.

..... Other (Please explain.)

---

b. Which of the following *best* represents your view of vocational programs in Washington State? (Check the appropriate response category and record any suggested changes/improvements in the space immediately following the selected response.)

..... Vocational programs are not at all adequate and major changes are needed in current approaches.

..... Vocational programs are adequate but definite improvements are needed.

..... Vocational programs and services are really quite adequate and very little in the way of improvement is needed.

42

APPENDIX B3

VOCATIONAL STUDENT SURVEY

Part I: Background Information

1. What is the name of the school or institution you are now attending for your vocational training?.....

2. Indicate the type of school or institution by circling the appropriate number.

   1 Public High School
   2 Vocational Technical Institute
   3 Community College
   4 Federal Manpower Training
   5 Private Vocational School
   6 Other (please specify)
   .....

3. Indicate the general occupation area toward which your vocational program is directed. (Circle the number corresponding to the *most* appropriate category.)

   1 Clerical
   2 Sales
   3 Craftsman
   4 Equipment Operator
   5 Technician
   6 Service Worker
   7 Other (please specify)
   .....

4. Indicate your sex by circling the appropriate number.

   1 Male
   2 Female

5. Indicate your age category by circling the appropriate number.

   1 Under 16
   2 16-18
   3 19-21
   4 21-23
   5 24 or more

6. Indicate whether you are enrolled in a specific vocational program or are just taking a few vocational classes as electives. Circle the number corresponding to the appropriate choice.

   1 Enrolled in specific vocational training program.
   2 Not enrolled in specific vocational training program but taking one or more vocational classes as electives.
   3 Other (please specify)
   .....

Part II: Viewpoints on Vocational Programs and Services

1. With respect to the vocational area in which you are currently enrolled, please indicate your opinion as to the type (or types) of institutions likely to provide the best training. (Indicate your opinion by circling one or more of the numbers as indicated in the response column to the right. If you have no preference, please so indicate by circling only #7.)

1 Four-Year College
2 Community College
3 Vocational-Technical Institute
4 Public High School
5 Private Vocational School
6 Other (please specify)

.....

7 No preference

2. a) Each of the following has been used—at one time or another—as a measure of "success" for a given vocational training program. To what extent do you agree or disagree with each as a measure of "success"? (Circle the appropriate response in each case.)

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
The percent of graduates placed in jobs	SA	A	U	D	SD
The percent of graduates placed in jobs that are directly related to their training	SA	A	U	D	SD
The amount of student satisfaction with the training program	SA	A	U	D	SD
The extent to which the program offers extended vocational opportunities for women	SA	A	U	D	SD
The program's ability to hold students who might otherwise drop out of school	SA	A	U	D	SD
The program's ability to provide the opportunity for students to experience the adult working world without having to make a specific commitment to a job	SA	A	U	D	SD
The program's ability to provide the student an opportunity to earn money during his/her training	SA	A	U	D	SD
The number of physically or mentally handicapped students served by the program	SA	A	U	D	SD
The number of disadvantaged (or low income) students served by the program	SA	A	U	D	SD
The program's ability to develop in the student skills for getting along with all types and ages of people	SA	A	U	D	SD
The number of students admitted to advanced training programs in their chosen vocational field	SA	A	U	D	SD
The rate at which graduates advance to more responsible positions within their chosen occupation	SA	A	U	D	SD

b) Please indicate any other measures of "success" you feel might be appropriate. (Use back side of page.)

---

3. a) Listed below are several reasons why students select vocational programs and/or courses. Please indicate the degree of importance you place on each reason by checking (√) the appropriate space.

	Very Important	Of Some Importance	Not Important
Vocational classes will give me needed training to enter a specific career field.	.....	.....	.....
Vocational classes provide practical experiences which will be useful to me but not necessarily as part of my career.	.....	.....	.....
Vocational classes are more interesting than other classes offered in this school.	.....	.....	.....
Vocational classes give me an opportunity to explore areas of personal interest.	.....	.....	.....
Vocational classes were recommended by adults and/or other students.	.....	.....	.....
Vocational classes teach me things that I might use in a part-time job while furthering my education.	.....	.....	.....
Vocational classes will give me training needed to advance in my chosen career field.	.....	.....	.....

---

b) Are there any other major reasons why you selected to take vocational classes?

---

4. a) Various agencies attempt to forecast workforce requirements as a guide to both institutions and individuals. How frequently have you used information on workforce forecasts in planning your own career or in advising others? (Circle a number.)

1 Quite often
2 Occasionally
3 Never

---

b) Do you have any suggestions for improving the forecast of tomorrow's job requirements?

---

5. a) How would you rank the following in terms of their responsibility in finding jobs for vocationally trained persons? (4 should have greatest responsibility and 1 should have least.)

..... The graduate him or herself
..... The training institutions
..... Private employment agencies
..... Public employment agencies—such as State Employment Security Department

---

b) To what extent would you favor increasing the placement services of public institutions providing vocational training? (Circle the appropriate number.)

1 Very much
2 Somewhat
3 Not at all
4 No opinion

---

c) From which of the three sources as listed have you received the most useful information about career choice? (Circle exactly three numbers.)

1 Teachers
2 Printed materials
3 Fellow students
4 Counselors
5 Parents
6 Other adults
7 Other (please specify) .....

---

d) If the state had an additional million dollars to spend on improving vocational education programs, what percent of the total would you spend on *each* of the following functions? (Put 0% when appropriate and make certain to use the entire 100% allocation.)

..... Improved counseling services for vocational students
..... Expanded placement services for vocational graduates
..... Adding training programs and staff/equipment in areas of need
..... Improving equipment inventories in selected ongoing program areas
..... Improving workforce forecasting services at state and local levels
..... Subsidizing industries for assisting with vocational training efforts
..... Reducing tuition and tax funds now required to support vocational programs

---

e) Are there any other major areas which should be considered in the distribution of program improvement funds?

---

6. a) In recent years, there has been a national concern about the admission of minority students into vocational programs. To what extent do you agree or disagree that *minority students are readily accepted into vocational programs in the State of Washington*? (Feel free to base your opinion on those schools and programs about which you are familiar.)

1 Strongly agree
2 Agree
3 Undecided
4 Disagree
5 Strongly Disagree

---

b) Throughout the State of Washington as well as most of the United States, there is a trend toward emphasizing career experiences at an increasingly earlier age (e.g., career exploration at the junior high level). How strongly do you agree or disagree with this *increased emphasis on career concerns at younger age levels*?

1 Strongly Agree
2 Agree
3 Undecided
4 Disagree
5 Strongly Disagree

---

7. Each of the following statements or proposals has been made regarding career and vocational programs. To what extent do you agree or disagree with each? (Circle the appropriate response in each case.)

SA = Strongly Agree A = Agree U = Undecided D = Disagree SD = Strongly Disagree

Every vocational program should have a community advisory committee made up of representation from both labor and industry	SA	A	U	D	SD
We should encourage exchange programs whereby counselors and teachers spend time working for pay outside of education and labor and industry personnel are hired to teach vocational skills in the schools	SA	A	U	D	SD
Every student graduating from high school should be required as part of his or her basic program to participate in some type of paid or unpaid work experience	SA	A	U	D	SD
Students trained in specific vocational programs are better employees than those not receiving such training	SA	A	U	D	SD
We should encourage area, county, and state conferences where labor, industry, and education personnel work together in planning future training programs and job placement procedures	SA	A	U	D	SD
Employing agencies which provide job training stations for students would be reimbursed for their services from public tax funds	SA	A	U	D	SD

8. a) Which of the following *best* represents your view for selecting and training handicapped students? (Check (√) the appropriate space.)

Admit only the number who can be easily placed in jobs, and provide some form of public assistance for the others.

Admit all who apply and make a reasonable effort to place them in jobs appropriate to their skill level.

Aggressively recruit these students to vocational programs and make every effort to place them in jobs appropriate to their skill level.

Other (please explain).

b) Which of the following *best* represents your view of vocational programs in Washington State? (Check (√) the appropriate response category and record any suggested changes/improvements in the space immediately following the selected response.)

Vocational programs are not at all adequate and major changes are needed in current approaches.

Vocational programs are adequate but definite improvements are needed.

Vocational programs and services are really quite adequate and very little in the way of improvement is needed.

APPENDIX B4

LOCAL ADVISORY COMMITTEE SURVEY

Institution .....

Advisory Committee .....

Part I: Background Information

1. Which of the following groups do you represent on the advisory committee? (Check one.)

   ..... employees
   ..... employers
   ..... government
   ..... education
   ..... student
   ..... other (please specify)
   .....

2. Do you serve on any vocational education advisory committee other than the one mentioned above? ..... If yes, which one(s): .....
   .....

3. How many times is your committee likely to meet during the next year? (Check one.)

   ..... none
   ..... once
   ..... twice
   ..... three times
   ..... more than three times

4. How many years have you served on this local advisory committee? .....

Part II: Viewpoints on Vocational Programs and Services

1. a) At the present time, there are various agencies which conduct specific vocational training programs (see those listed at the right). How would you judge the appropriateness of *each* in providing vocational training? Place your preferred rating (1, 2, 3, 4 or 5) next to each institutional type.

   1 = Highly appropriate
   2 = Somewhat appropriate
   3 = Undecided or unable to judge
   4 = Somewhat inappropriate
   5 = Highly inappropriate

   ..... Public high school
   ..... Vocational-Technical institutes
   ..... Community colleges
   ..... Federal manpower training programs
   ..... Private vocational schools

b) If you marked any of the above as inappropriate (4 or 5), please indicate reasons for your judgment. (Use the back of this page.)

---

2. a) Each of the following has been used—at one time or another—as a measure of "success" for a given vocational training program. To what extent do you agree or disagree with each as a measure of "success"? (Circle the appropriate response in each case.)

SA = Strongly Agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree

The percent of graduates placed in jobs	SA	A	U	D	SD
The percent of graduates placed in jobs that are directly related to their training	SA	A	U	D	SD
The amount of student satisfaction with the training program	SA	A	U	D	SD
The extent to which the program offers extended vocational opportunities for women	SA	A	U	D	SD
The program's ability to hold students who might otherwise drop out of school	SA	A	U	D	SD
The program's ability to provide the opportunity for students to experience the adult working world without having to make a specific commitment to a job	SA	A	U	D	SD
The program's ability to provide the student an opportunity to earn money during his or her training	SA	A	U	D	SD
The number of physically or mentally handicapped students served by the program	SA	A	U	D	SD
The number of disadvantaged (or low income) students served by the program	SA	A	U	D	SD
The program's ability to develop in the student skills for getting along with all types and ages of people	SA	A	U	D	SD
The number of students admitted to advanced training programs in their chosen vocational field	SA	A	U	D	SD
The rate at which graduates advance to more responsible positions within their chosen occupation	SA	A	U	D	SD

---

b) Please indicate any other measures of "success" you feel might be appropriate:

---

3. a) Various agencies attempt to forecast workforce requirements as a guide to institutions providing vocational training. How useful do you think these forecasts have been? (Circle a number)

1 Highly useful
2 Somewhat useful
3 Undecided or unable to judge
4 Less useful
5 Not at all useful

---

b) Do you have any suggestions for improving the forecast of tomorrow's job requirements?

---

4. a) How would you rank the following in terms of their responsibility in finding jobs for vocationally trained persons? (1 should have greatest responsibility and 4 should have least.)

..... The graduate him or herself
..... The training institutions
..... Private employment agencies
..... Public employment agencies such as State Employment Security Department

---

b) To what extent would you favor expanding the school's role in helping graduates find jobs (placement service)?

1 Very much
2 Somewhat
3 Not at all
4 No opinion

---

c) If the state had an additional million dollars to spend on improving vocational education programs, what percent of the total would you spend on *each* of the following functions? (Put 0% when appropriate and make certain to use the entire 100% allocation.)

..... Improved counseling services for vocational students
..... Expanded placement services for vocational graduates
..... Adding training programs and staff/equipment in areas of need
..... Improving equipment inventories in selected ongoing program areas
..... Improving workforce forecasting services at state and local levels
..... Subsidizing industries for assisting with vocational training efforts
..... Reducing tuition and tax funds now required to support vocational programs

---

d) Are there any other major areas which should be considered in the distribution of program improvement funds?

---

5. Throughout the State of Washington as well as most of the United States, there is a trend toward emphasizing career experiences at an increasingly earlier age (e.g., career awareness at elementary and career exploration at the junior high level.) How strongly do you agree or disagree with this increased emphasis on career concerns at younger age levels? (Circle a number)

1 Strongly agree
2 Agree
3 Undecided
4 Disagree
5 Strongly Disagree

---

6. Each of the following statements or proposals has been made regarding career and vocational programs. To what extent do you agree or disagree with each? (Circle the appropriate response in each case.)

SA = Strongly Agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree

Every vocational program should have a community advisory committee made up of representation from both labor and industry.	SA	A	U	D	SD
We should encourage exchange programs whereby counselors and teachers spend time working for pay outside of education and labor and industry personnel are hired to teach vocational skills in the schools.	SA	A	U	D	SD
Every student graduating from high school should be required as part of his or her basic program to participate in some type of paid or unpaid work experience.	SA	A	U	D	SD
Students trained in specific vocational programs are better employees than those not receiving such training.	SA	A	U	D	SD
We should encourage area, county, and state conferences where labor, industry, and education personnel work together in planning future training programs and job placement procedures.	SA	A	U	D	SD
Employing agencies which provide job training stations for students should be reimbursed for their services from public tax funds.	SA	A	U	D	SD

7. a) Which of the following activities have you been involved in as an advisory committee member?

b) Which three activities do you perceive to be the most important in developing successful vocational education programs?

Check (√) all activities in which you have been involved		Check (√) the three most important activities
.....	developing training programs	.....
.....	suggesting equipment and tools for purchase	.....
.....	counseling the instructor	.....
.....	work on manpower forecasts in your industry	.....
.....	contributing equipment and supplies for the training program	.....
.....	provide work stations for training	.....
.....	assist in job placement	.....
.....	offer guidance to individual students	.....
.....	assist in telling the vocational story before service clubs, trade, organizations, etc.	.....
.....	help in the placement of handicapped students and other "have" to place" graduates	.....
.....	approve the hiring of the instructors	.....
.....	speak to classes of trainees	.....
.....	help in passing school levies	.....

We wish to thank you for your cooperation in completing this survey. Your continued assistance in working with the State Advisory Council is appreciated. Please return this survey in the enclosed self-addressed envelope. No postage is required.

APPENDIX C

Firms and Agencies in Employer and Graduate Samples

Advanced Welding, Inc.
20311 52nd Avenue West
Lynnwood, Washington 98036
Construction

Alaska Airlines
Sea-Tac
Seattle, Washington 98158
Transportation

Alcoa Aluminum (Conductor Products)
P. O. Box 120
Vancouver, Washington 98660
Manufacturing

Alderwood Village Beauty Salon
Box 2282
Lynnwood, Washington 98036
Personal Services

American Red Cross
2515 South Holgate
Seattle, Washington 98144
Welfare and Religious Services

Apollo Boat Manufacturer
1800 Langley North
Spokane, Washington 99206
Construction

Arby's
4910 196th Avenue Southwest
Lynnwood, Washington 98036
Retail Trade

Arlington School District
135 South French Avenue
Arlington, Washington 98223
Education Services

Appliance and Parts Service
West 917 Mullon
Spokane, Washington 99201
Business and Repair Service

Auburn Plywood
417 A Street Northwest
Auburn, Washington 98002
Retail Trade

Auerswald's Business University
1524 Fifth Avenue
Seattle, Washington 98101
Education Services

Bellevue Public Schools
12039 Northeast 5th
Bellevue, Washington 98005
Education Services

Bellingham Hardware
215 West Holly Street
Bellingham, Washington 98225
Retail Trade

Bellingham School District
Box 827
Bellingham, Washington 98225
Education Services

Ben Bridge Jewelers, Inc.
409 Pike Street
Seattle, Washington 98101
Retail Trade

Black Angus Restaurant
1800 West Lewis
Pasco, Washington 99301
Retail Trade

Black Angus Restaurant
200 Second Avenue West
Seattle, Washington 98104
Retail Trade

Boeing Company**
P. O. Box 3707
Seattle, Washington 98124
Manufacturing

Bowden's Auto Parts
1002 East Nob Hill Blvd.
Yakima, Washington 98902
Wholesale Trade

Bogue and Associates
4041 Ruston Way
Tacoma, Washington 98402
Legal, Engineering, and Professional Services

Bon Marche
3rd and Pine
Seattle, Washington 98101
Retail Trade

Burlington Northern
181 King Street
Seattle, Washington 98104
Transportation

Cascade Valley Hospital
330 Stillaguamish
Arlington, Washington 98223
Health Services

Cascadian Fruit Shippers
Box 919
Wenatchee, Washington 98809
Wholesale Trade

53

Central Premix Concrete
805 North Division
Spokane, Washington 99202
Manufacturing

Chausee Cedar Company
11839 Woodinville Drive
Bothell, Washington 98011
Construction

Chelan County PUD
P. O. Box 1231
Wenatchee, Washington 98809
Utility and Sanitary Services

Clark County PUD
Box 1626
Vancouver, Washington 98663
Utility and Sanitary Services

Continental Airlines
Sea-Tac International Airport
Seattle, Washington 98158
Transportation

Corning Logging
302 BNB Building
Bellingham, Washington 98225
Manufacturing

Coronet Toy Manufacturing
1121 Post Avenue
Seattle, Washington 98101
Manufacturing

Corrugated Metals, Inc.
902 Trent East
Spokane, Washington 99202
Wholesale Trade

Courtesy Chevrolet Pontiac Inc.
P. O. Box 750
Newport, Washington 99156
Retail Trade

The Crescent
710 Riverside West
Spokane, Washington 99201
Retail Trade

Crown Hill Dental Center
1421 Northwest 85th
Seattle, Washington 98117
Health Services

Cunningham Sand and Gravel Co. Inc.
6315 North Cedar
Spokane, Washington 99208
Agriculture, Mining and Fishing

Darigold Farms
East 33 Francis
Spokane, Washington 99207
Agriculture, Mining and Fishing

Deaconess Hospital
West 800 5th Avenue
Spokane, Washington 99202
Health Services

Dept. of HEW
1321 Second Avenue
Seattle, Washington 98101
Public Administration

Edwards Farm Equipment
4312 Main
Union Gap, Washington 98903
Manufacturing

Ellensburg
420 Pearl
Ellensburg, Washington 98926
Public Administration

Ellensburg Public Schools
222 East Fourth Avenue
Ellensburg, Washington 98926
Education Services

Environmental Protection Agency
1200 6th Avenue
Seattle, Washington 98101
Public Administration

Everett School District
4730 Colby Avenue
Everett, Washington 98201
Education Services

Everett Trust and Savings
2817 Colby
Everett, Washington 98201
Finance and Insurance

Federal Intermediate Credit Bank
of Spokane
705 First Avenue
Spokane, Washington 99202
Finance and Insurance

The Fox Restaurant
156th and 8th Northeast
Bellevue, Washington 98007
Retail Trade

Grays Harbor County PUD
Box 480
Aberdeen, Washington 98520
Utility and Sanitary Services

Grays River Logging Co. Inc.
Box 6
Naselle, Washington 98638
Manufacturing

Great Northwest Federal Savings and
Loan Association
Box 319
Bremerton, Washington 98310
Finance and Insurance

Greyhound Lines West
1250 Denny Way
Seattle, Washington 98109
Transportation

Grigg's Self Service Department Store
801 Columbia
Pasco, Washington 99301
Retail Trade

Group Health Cooperative Hospital
201 61st Northeast
Seattle, Washington 98115
Health Services

Gunderson Manufacturer and Jeweler
764 Broadway
Tacoma, Washington 98403
Manufacturing

Gunning Builders, Inc
9616 Montgomery East
Spokane, Washington 99206
Construction

Herfy's
3409 Colby Avenue
Everett, Washington 98201
Retail Trade

Inland Machinery
P. O. Box 1664
Yakima, Washington 98601
Wholesale Trade

International Dunes Motel
1800 West Lewis
Pasco, Washington 99301
Personal Services

Interstate Asphalt Co. Inc.
Box 208
Aberdeen, Washington 98520
Construction

Interstate Coatings Inc.
Box 6288
Seattle, Washington 98188
Construction

Jacklin Seed Co.
8803 Sprague Avenue East
Spokane, Washington 99206
Wholesale Trade

Jay Jacobs
1530 5th Avenue
Seattle, Washington 98101
Retail Trade

Jimbet Publishing House
41 First East
Deer Park, Washington 99006
Manufacturing

K-2 Corporation
P. O. Box 509
Vashon, Washington 98020
Manufacturing

Kentucky Fried Chicken
13248 Aurora Avenue North
Seattle, Washington 98133
Retail Trade

Kentwood Homes, Inc.
20213 East Valley Highway
Kent, Washington 98031
Manufacturing

Kitsap County Bank
Box 9
Port Orchard, Washington 98366
Finance and Insurance

L and L Shoe Company
6630 Sprague Avenue East
Spokane, Washington 99206
Retail Trade

Lakeside Industries
Box 1379
Bellevue, Washington 98009
Construction

Lake Washington Vocational-Technical
Career Center
6511 112th Avenue Northeast
Kirkland, Washington 98033
Educational Services

Litho Art Printers
118 Lincoln South
Spokane, Washington 99204
Manufacturing

Longview Motor Transport Inc.
7th and Douglas
Longview, Washington 98632
Transportation

Lukes M and M Electric Inc.
13011 Highway 99
Everett, Washington 98204
Construction

Marr Wadoups and Association, Inc.
Box 764
Pasco, Washington 99301
Agriculture, Mining and Fishing

City of Marysville
City Hall
Marysville, Washington 98270
Public Administration

Maxwell Manufacturing Co.
Box 649
Vancouver, Washington 98660
Manufacturing

Metro
410 West Harrison
Seattle, Washington 98119
Public Administration

Mt. Adams Furniture
P. O. Box 250
Wapato, Washington 98951
Manufacturing

National Cash Register Company
500 Fairview Avenue North
Seattle, Washington 98121
Retail Trade

Newport Community Hospital
Box 669
Newport, Washington 99156
Health Services

Norm's Welding and Fabricating
4612 148th Northeast
Redmond, Washington 98052
Business and Repair Service

North Pacific Construction Company
507 South 5th Avenue
Yakima, Washington 98902
Construction

North Seattle Community College
19600 College Way North
Seattle, Washington 98103
Education Services

Olberg Thrifty Drugs
1617 Southwest Roxbury
Seattle, Washington 98106
Retail Trade

Olympia Credit Bureau
P. O. Box 1516
Olympia, Washington 98507
Finance and Insurance

Pacific Fruit and Produce
5 North First Avenue
Yakima, Washington 98902
Agriculture, Mining and Fishing

Pacific Northwest Bell
821 Second Avenue
Seattle, Washington 98104
Transportation

Pacific Trail Sportswear Manuf.
Industrial Park
Spokane, Washington 99210
Manufacturing

Pay 'N Save Corp.
1511—6th
Seattle, Washington 98901
Retail Trade

J. C. Penney Corp.*
Northgate Shopping Center
Seattle, Washington 98125
Retail Trade

Post-Intelligencer
6th and Wall
Seattle, Washington 98121
Manufacturing

Produce Supply
919 Trent East
Spokane, Washington 99202
Wholesale Trade

Ratelco Inc.
625 Yale
Seattle, Washington 98109
Business and Repairs Service

Reese Bros.
P. O. Box 630
Kelso, Washington 98626
Agriculture, Mining and Fishing

Reinell Boats Inc.
Box 188
Marysville, Washington 98270
Manufacturing

Ridpath Hotel
West 515 Sprague
Spokane, Washington 99204
Personal Services

Robinson, JJ and Co.
311 East Market Street
Aberdeen, Washington 98520
Retail Trade

Rocket Research Corp.
11441 Willows Road
Redmond, Washington 98052
Manufacturing

Safeway Stores, Inc.*
Box 947
Bellevue, Washington 98009
Retail Trade

Salvation Army
233 First West
Seattle, Washington 98104
Welfare and Religious Services

Scientific Security Supply Co.
2131 First Avenue
Seattle, Washington 98121
Business and Repair Services

Sea Hurst Medical Center Inc.
1800 Southwest 152nd
Seattle, Washington 98166
Health Services

56

Sears, Roebuck and Co.
East Valley Mall
Union Gap, Washington 98903
Retail Trade

Seattle Engineering Dept.
City Municipal Building
600 4th Avenue
Seattle, Washington 98104
Utility and Sanitary Service

Seattle Center
305 Harrison
Seattle, Washington 98102
Public Administration

Seattle City Light*
Seattle, Washington 98104
Utility and Sanitary Services

Seattle First National Bank
Box 3586
Seattle, Washington 98124
Finance and Insurance

Seattle Parks and Recreation Dept.
610 Municipal Building
Seattle, Washington 98104
Public Administration

Seattle Radiologists Inc.
1018 Medical-Dental Building
Seattle, Washington 98101
Health Services

Self Service Furniture Inc.
5415 Sprague Avenue East
Spokane, Washington 99206
Retail Trade

Sherwood Inn
8402 South Hosmer
Tacoma, Washington 98444
Personal Services

Shoreline School District
Northeast 158th and 20th Avenue Northeast
Seattle, Washington 98155
Education Services

Signal Electric Inc.
9012 South 208th Street
Kent, Washington 98031
Construction

Skyline Electric and Manufacturing Co., Inc.
203 West Thomas
Seattle, Washington 98119
Manufacturing

Snohomish County Dept. of Public Works
Box 1107
Everett, Washington 98206
Public Administration

Spokane Schools District 81
825 Trent Avenue West
Spokane, Washington 99201
Education Services

Sultan Schools
Box 247
Sultan, Washington 98294
Education Services

Technical Molded Plastics Corp.
1119 North 100th
Seattle, Washington 98133
Manufacturing

Totem Pole Inn, Inc.
7720 Highway 99
Vancouver, Washington 98665
Retail Trade

Twin City Food
Box 587
Stanwood, Washington 98292
Manufacturing

Udell Ranches
Rt. 6, Box 140
Yakima, Washington 98902
Agriculture, Mining and Fishing

United Drive In Theatre
Securities Building
Seattle, Washington 98101
Entertainment and Recreation Services

United Furniture Co.
200 West Main Street
Kelso, Washington 98626
Retail Trade

University Foreign Car Repair
3300 Northeast 55th
Seattle, Washington 98105
Business and Repair Services

University Hospital*
University of Washington
Seattle, Washington 98195
Health Services

Valley Evaporating Co.
P. O. Box 16
Yakima, Washington 98907
Manufacturing

Valley Ford Sales, Inc.
910 South First Street
Yakima, Washington 98902
Retail Trade

Vance Corp.
1412 Tower Building
Seattle, Washington 98101
Personal Services

Washington Education Association
910 Fifth Avenue
Seattle, Washington 98104
Legal, Engineering and Professional Services

Washington Irrigation and Development Co.
Rt. 2, Box 41
Centralia, Washington 98531
Agriculture, Mining and Fishing

Washington Plaza Hotel Co.
5th and Westlake
Seattle, Washington 98101
Personal Services

Washington School Employees Credit Union
325 Eastlake Avenue East
Seattle, Washington 98109
Finance and Insurance

Weisfield's Inc.
800 South Michigan Street
Seattle, Washington 98108
Retail Trade

Western Washington State College
320 Old Main
Bellingham, Washington 98225
Education Services

West Point Treatment Plant/Metro
221 West Harrison
Seattle, Washington 98119
Utility and Sanitary Services

Winslow Convalescent Center
835 Madison Avenue North
Bainbridge Island, Washington 98110
Health Services

Yakima School District
104 North 4th Avenue
Yakima, Washington 98902
Education Services

Yakima Valley College
16th and Nob Hill Blvd.
Yakima, Washington 98902
Education Services

NOTE: *Two sets of interviews were obtained from each of these organizations.
**Three sets of interviews were obtained from this organization.

APPENDIX D
Educational Institutions and Classes Sampled

I. **Bellevue Community College**
1. Accounting 101
2. Engineering Technology 161
3. Horticulture 111
4. Marketing 234
5. Media 175

II. **Davis High School (Yakima)**
1. D. E. Coop Program
2. F. E. A. S. T.
3. Industrial Plastics
4. Shorthand

III. **Fort Steilacoom Community College**
1. Accounting 170
2. Fashion 160
3. Law Enforcement 103
4. Secretarial Science 135

IV. **Franklin-Pierce High School**
1. Business Communications
2. Ornamental Horticulture
3. Welding

V. **L. H. Bates Vocational-Technical Institute of Tacoma**
1. Auto Mechanics
2. Bookkeeping—Accounting
3. Business Machines
4. Dental Assisting
5. Electronic Technology
6. Sheetmetal Worker

VI. **Shadle Park High School (Spokane)**
1. Bookkeeping and Accounting
2. D. E. Coop Program
3. Environmental Horticulture
4. Nurse Aides and Orderlies

VII. **Shoreline School District**
1. D. E. Coop Program[1]
2. Clothing Production and Management[2]
3. Graphic Arts Occupations[3]
4. Office Machines[2]
5. Secretarial Office Procedures[2]

VIII. **Spokane Continuation High School**
1. Building Trades
2. Metal Fabricator

IX. **Toledo High School (Lewis County)**
1. Bookkeeping
2. Diversified Occupations

X. **Yakima Valley College**
1. Auto Mechanics 51
2. Data Processing 52
3. Electronics 91
4. General Mechanics 64

[1]Students enrolled in Shorecrest High School.
[2]Students enrolled in Shoreline High School.
[3]Students from both Shorecrest and Shoreline enrolled in this class.